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Water Resources Data for New Jersey
Water Year 1983. Volume 2
Delaware River Basin and
Tributaries to Delaware Bay

(U.S.) Geological Survey, Trenton, NJ

Jul 84

U.S. Department of Commerce
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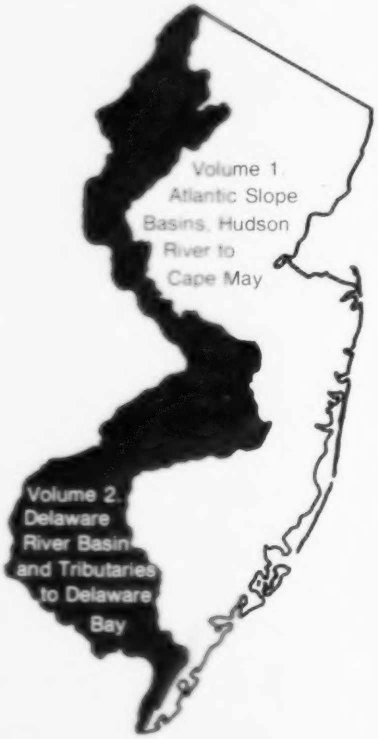
DEPARTMENT OF THE INTERIOR March 3, 1849

Water Resources Data New Jersey Water Year 1983

Volume 2. Delaware River Basin and Tributaries to Delaware Bay


Volume 1. Atlantic Slope Basins, Hudson River to Cape May
Volume 2. Delaware River Basin and Tributaries to Delaware Bay

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-83-2
Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

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SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1983

1982

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United States Department of the Interior

GEOLOGICAL SURVEY

Water Resources Division
Room 418, Federal Building
402 East State Street
Trenton, New Jersey 08608

I am pleased to announce the release of our annual report, "Water Resources Data for New Jersey, Water Year 1983". This report was prepared by the U.S. Geological Survey, in cooperation with the State of New Jersey and several local and federal government agencies.

Once again this year, the report is issued in two volumes: Volume 1.--Atlantic Slope Basins, Hudson River to Cape May; Volume 2.--Delaware River Basin and Tributaries to Delaware Bay.

The report contains records of stream discharge and water-quality measurements, elevations of lakes and reservoirs, major water-supply diversions, and tidal elevations. Also included are records of sediment concentrations and records of ground-water quality and ground-water levels. Special sections are devoted to low-flow and crest-stage data and summaries of tidal crest elevations in the New Jersey estuaries and intracoastal waterways.

Copies of this report are for sale through the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. When ordering, refer to U.S. Geological Survey Water-Data Report NJ-83-1 (for Volume 1) and NJ-83-2 (for Volume 2). For further information on this report, or if the address on the mailing label has changed, or if you no longer desire to receive this report, please contact me at the above address or telephone (609) 989-2162.

Sincerely,

William R. Bauersfeld

William R. Bauersfeld, Chief
Hydrologic Studies Section

Department of the Interior

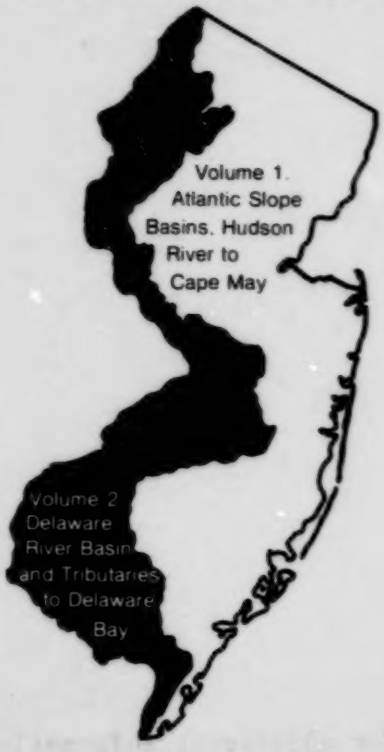
March 3 1849

Water Resources Data New Jersey

Water Year 1983

Volume 2. Delaware River Basin and Tributaries to Delaware Bay

by W.R. Bauersfeld, E.W. Moshinsky, E.A. Pustay, and F.L. Schaefer


Volume 1. Atlantic Slope Basins, Hudson River to Cape May
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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-83-2

Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to

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U.S. Geological Survey
Room 418, Federal Building
402 East State Street
Trenton, New Jersey 08608

1984

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New Jersey are contained in 2 volumes·

Volume 1.	Atlantic Slope Basins, Hudson River to Cape May
Volume 2.	Delaware River Basin and Tributaries to Delaware Bay

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

E. Dorr
R.L. Ulery
G.R. Kish
R.D. Schopp
W.D. Jones
G.M. Farlekas

S.J. Perry and I.C. Heerwagen word processed the text of the report. Illustrations and maps drafted by G.L. Simpson.

This report was prepared under the general supervision of D.E. Vaupel, District Chief, New Jersey District, and S.P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the State of New Jersey and with other agencies.

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16. Abstract (Limit: 200 words)

Water Resources data for the 1983 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume of the report contains discharge records for 23 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 39 surface-water sites and 72 wells; and water levels for 27 observation wells. Also included are data for 27 crest-stage partial-record stations, 7 tidal crest-stage gages, and 24 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the national water data system operated by U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

17. Document Analysis a. Descriptors

*New Jersey, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water Levels, Water Analyses

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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SURFACE WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letter after station name designates type of data: (d) discharge, (c) chemical, (m) microbiological, (e) elevation, gage height or contents, (t) water temperature, (s) sediment]

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INTRODUCTION

Water resources data for the 1983 water year for New Jersey consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contains water discharge at 23 gaging stations; tide summaries for 3 stations; stage and contents for 16 lakes and reservoirs; water quality for 39 surface water sites, and 72 wells; and water levels for 27 observation wells. Also included are data for 27 crest-stage partial-record stations; 7 tidal crest-stage gage and 24 low-flow partial-record stations. Locations of these sites are shown in figures 5, 6, and 7. Additional water data were collected at various sites not part of the systematic data collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volume 1 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, Local, and Federal agencies in New Jersey.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in offical Survey reports on a State-boundary basis. These offical Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume of the report is identified as "U.S. Geological Survey Water-Data Report NJ-83-2." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 989-2162.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection, Robert E. Hughey, Commissioner.
  Division of Water Resources, John W. Gaston, Jr., Director.
North Jersey District Water Supply Commission, Dean C. Noll, Chief Engineer.
Passaic Valley Water Commission, W.I. Inhoffer, General Superintendent and Chief Engineer.
County of Bergen, E.R. Ranuska, Director of Public Works and County Engineer.
County of Camden, Joseph T. Patermo, Director of Camden County Planning Board.
County of Morris, James Plante, Chairman of Morris County Municipal Utilities Authority.
County of Somerset, Thomas E. Decker, County Engineer, and Thomas Harris, Administrative Engineer.
Township of West Windsor, Larry Ellery, Chairman of Environmental Commission.
Township of Bridgewater, Cynthia Jacobson, Chairman of Environmental Commission.

Assistance in the form of funds was given by the Corps of Engineers, U.S. Army, in collecting records for 50 surface water stations, and for the collection of sediment records at one stream-sampling station, and by the U.S. Environmental Protection Agency for the collection of chemical analyses at four stream-sampling stations. In addition, several stations were operated fully or partially from funds appropriated directly to the Geological Survey. Assistance was also furnished by the National Weather Service and the National Ocean Survey.

The following organizations aided in collecting records:

Municipalities of Atlantic City, Jersey City, Newark, New Brunswick and Spotswood; American Cyanamid Co.; Commonwealth Water Co.; Elizabethtown Water Co.; Ewing-Lawrence Sewerage Authority; Hackensack Water Co.; Johns-Manville Products Corp.; and Monmouth Consolidated Water Co.; Jersey Central Power and Light Co.

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENTS

The water resources data for New Jersey were processed and prepared for publication under the supervision of W.R. Bauersfeld, Chief, Hydrologic Studies Section. The data were collected, computed and processed by other personnel as follows:

H. Bivens
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B. D. Gillespie
C. E. Gurney
J. T. Fisher
A. J. Kalik
C. E. Nahn
G. J. Pheasant
M. O. Philips
E. Rodgers

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow in the 1983 Water Year was slightly above normal in the southern and coastal areas but was excessive in the north (upper 25 percent of record). Precipitation ranged from about 120 percent of normal in the coastal and southern part of the State to 150 percent of normal in the north. Reservoirs began spilling in March, but by the end of the water year, they were only 62 percent of capacity, compared to 88 percent at the end of the previous year.

Water year 1983 began with streamflow below normal at all index stations. River flow steadily declined until the end of February when runoff was deficient by 2.5 inches and streamflow only about 75 percent of normal. River flow recovered in March when precipitation fell on 20 days of the month. A major storm on March 18 and 19 resulted in from 2 to 4 inches of rainfall throughout the State and produced a monthly total more than 200 percent above normal. Heavy precipitation continued in April, with the total again exceeding 200 percent of normal. Flooding was reported in many northeastern communities. The Delaware River at Trenton recorded its highest stage since August, 1955, on April 17. A new high monthly mean discharge for April was noted at South Branch Raritan River at High Bridge that exceeded the previous record discharge set in 1952, and at Great Egg Harbor River at Folsom set in 1970. Excessive streamflow continued through July, even though precipitation returned to about normal in June. For the remainder of the year, streamflow was about normal in the north and about 80 percent of normal in the south and coastal areas.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 165 ft^3/s, which was 136 percent of the 65-year average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 92.3 ft^3/s, which was 107 percent of the 58-year average. The observed annual mean discharge of the Delaware River at Trenton was 12,650 ft^3/s, which was 108 percent of normal. However, the Delaware is highly regulated by reservoirs and diversions. The natural flow at Trenton (adjusted for diversion and storage upstream) was 110 percent of normal for the year.

Figures 2 and 3 compare the monthly and annual discharges with past records at these index gaging stations.

Storage in the 13 major water-supply reservoirs in New Jersey decreased from 66.3 billion gallons (88 percent of capacity) on October 1, 1982 to 46.8 billion gallons (62 percent of capacity) on September 30, 1983. Storage in Wanaque Reservoir decreased from 24.4 billion gallons (87 percent of capacity) on October 1, 1982 to 18.9 billion gallons (67 percent of capacity) on September 30, 1983. Pumped storage in Round Valley Reservoir increased from 39.8 billion gallons (72 percent of capacity) on October 1, 1982, to 40.6 billion gallons (74 percent of capacity) on September 30, 1983.

Greater-than-normal precipitiation during the last 7 months of the year contributed to general improvement in water quality as reflected by specific conductance. Mean monthly specific conductance for the Delaware River at Trenton during the later months was lower than or equal to values for the preceding year. Heavy rainfall during March resulted in the lowest recorded values of specific conductance on the Passaic River at Little Falls since continuous record began October 1, 1980.

Ground-water levels rose during 1983 in most water-table wells throughout the State, reflecting increases in recharge. Water-table levels in 1983 were generally higher than in either 1981 or 1982 and were in the normal range from about March through September. Artesian water levels in wells tapping the heavily stressed confined aquifers of the Coastal Plain, however, continued to show long-term net declines because of increasing withdrawals of ground water. As in past years, the declines were greatest in the Potomac-Raritan-Magothy aquifer system throughout the Coastal Plain and in the Wenonah-Mount Laurel, Englishtown, and Farrington aquifers in the northern part of the Coastal Plain.

Monthly water levels are compared with long-term averages at two observation wells in figure 4. The wells shown are the Bird well in Hunterdon County and the Crammer well in Ocean County. For further comparison, multi-year hydrographs are provided for all the wells given in these reports. The hydrographs are shown with the 1983 water-level data.

DEFINITION OF TERMS

Terms related to streamflow, water-quality and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound Units to Metric Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life processes. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Aquifer codes and geologic names:

The following list shows the aquifer codes and geologic names of the formations in which the sampled wells are finished. The aquifer codes also appear in the column "Geologic Unit" in the ground-water quality tables:

112SFDF , STRATIFIED DRIFT
112CPMY , CAPE MAY FORMATION, UNDIFFERENTIATED
112ESRNS , CAPE MAY FORMATION, ESTUARINE SAND FACIES
121CNSY , COHANSEY SAND
121CKKD , KIRKWOOD-COHANSEY AQUIFER SYSTEM
122KRKDU , RIO GRANDE WATER-BEARING ZONE OF THE KIRKWOOD FORMATION
122KRKDL , ATLANTIC CITY 800-FOOT SAND OF THE KIRKWOOD FORMATION
124PNPN , PINEY POINT AQUIFER
124MNSQ , MANASQUAN FORMATION
125VNCN , VINCENTOWN FORMATION
211MLRW , WENONAH-MOUNT LAUREL AQUIFER
211EGLS , ENGLISHTOWN AQUIFER
211MRPA , POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM, UNDIFFERENTIATED
  211MRPAU , UPPER AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM, (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
  211MRPAM , MIDDLE AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
  211MRPAL , LOWER AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (BURLINGTON, CAMDEN, GLOUCESTER, SALEM COUNTIES)
  211ODBG . OLD BRIDGE AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (MERCER, MIDDLESEX, MONMOUTH COUNTIES)
  211FRNG , FARRINGTON AQUIFER, POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM (MERCER, MIDDLESEX, MONMOUTH COUNTIES)
231BRCK , BRUNSWICK SHALE OR FORMATION
231SCKN , STOCKTON FORMATION

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, used for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the quantity of organic matter which can be chemically oxidized in the presence of a strong oxidant.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile ($ft^3/s/mi^2$, CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of the evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum is a datum plane that is approximately at the land surface at the well.

Low tide is the minimum height reached by each falling tide.

Mean high or low tide is the average of all high or low tides, respectively, over a specified period.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (UG/G) is a unit expressing the concentration of a chemical element as the weight (micrograms) of the element sorbed per unit weight (gram) of sediment.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in Hem (1970).

National Geodetic Vertical Datum of 1929 (NGVD of 1929). A geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada, formerly called "Mean Sea Level."

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in these reports.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay...........	0.00024 - 0.004	Sedimentation.
Silt...........	.004 - .062	Sedimentation.
Sand...........	.062 - 2.0	Sedimentation or sieve.
Gravel.........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg $C/(m^2/time)$ for periphyton and macrophytes and mg $C/(m^3/time)$ for phytoplankton] are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg $O_2/(m^2/time)$ for periphyton and macrophytes and mg $O_2/(m^3/time)$ for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having an atomic weight of 35.453.

Radioisotopes that are determined in this report are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PCI/L, (pCi/L, picocuries per liter), gross beta in PCI/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achhieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Screened interval (FT) is the length of well screen through which water enters a well, in feet below land surface.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physcial surface upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization by organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) **dissolved** and (2) **total** concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata* is the following:

Kingdom..................Animal
Phylum...............Arthropoda
Class...................Insecta
Order............Ephemeroptera
Family.............Ephemeridae
Genus..................*Hexageria*
Species......*Hexagenia limbata*

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperatures of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total" (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample).

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is being transported in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

WDR is used as an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports. Prior to 1975, WRD was used, which was the abbreviation for "Water-Resources Data."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 01463500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "463500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The wells and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, they are assigned sequential numbers "01", "02", etc. as one would for wells. See figure 1 below.

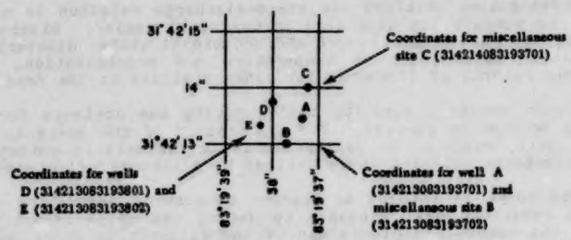
31°42'15"
14"
31°42'13"
83°19'39"
38"
83°19'37"
A
B
C
D
E
Coordinates for miscellaneous site C (314214083193701)
Coordinates for wells D (314213083193801) and E (314213083193802)
Coordinates for well A (314213083193701) and miscellaneous site B (314213083193702)

Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in stream where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are decribed in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in determining discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharge are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage height are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location for the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present stations or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first the extremes for current year, second, the extremes for the period of record, and last information available outside the period of record. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water record for the 5-year period October 1, 1965 to September 30, 1970, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Paper 1302; records for October 1950 to September 1960 have been compiled and published in Water-Supply Paper 1722; records for October 1960 to September 1965 have been compiled and published in Water-Supply Paper 1902; records for October 1965 to September 1970 have been compiled and published in Water-Supply Paper 2102. These reports contain summaries of monthly and annual discharge and month-end storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of stage or discharge collected by agencies other than the Geological Survey

Records of stage or discharge not published by the Geological Survey were collected in New Jersey at 30 sites during the water years October 1960 to current year by the following agencies: records at 4 sites were collected by the North Jersey District Water Supply Commission; at 14 sites by Passaic County; at 1 site by the National Weather Service; at 3 sites by the National Ocean Survey; at 3 sites by the Corps of Engineers; and 5 sites by Delaware River Joint Toll Bridge Commission. The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintain an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the water-quality data, extremes of the pertinent data, and general remarks. For ground-water sampling stations, no descriptive statements are presented. However, the well number, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical, biological, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes the concentrations of individual constituents and certain properties such as hardness, specific conductance, and pH. The biological information may include qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identifications of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a water-quality noncontinuous-digital monitor furnishes hourly temperature readings that provide daily maximum, minimum, and mean temperature data summaries. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using Table 1 below.

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)* (Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
0.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," and table for converting Inch-pound Units to International System Units, inside back cover).

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed at the end of this section. Analysis of pesticides, herbicides, and organic substances in water are described by Goerlitz and Brown. The collection and analysis of aquatic, biological and microbiological samples are described by Greeson and others.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through many vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with noncontinuous-digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office (for address see Page IV).

The quality of ground water normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are collected after prepumping the well and are analyzed individually.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. Influential factors, field measurement, and data representation of temperature are described by Stevens, Ficke and Smoot (1975).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment are included.

Remark codes for water-quality data

PRINTED OUTPUT	REMARK	PRINTED OUTPUT	REMARK
E	ESTIMATED VALUE	<	ACTUAL VALUE IS KNOWN TO BE LESS THAN THE VALUE SHOWN
>	ACTUAL VALUE IS KNOWN TO BE GREATER THAN THE VALUE SHOWN	ND	MATERIAL SPECIFICALLY ANALYZED FOR BUT NOT DETECTED
K	RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT)		

Publications

Table 2 below, shows the annual series of water-supply papers that give information on quality of surface waters in New Jersey.

Table 2.--Water-supply paper (WSP) numbers, water years, 1945-70

Year	WSP	Year	WSP	Year	WSP
1945	1030	1954	1350	1963	1947
1946	1050	1955	1400	1964	1954
1947	1102	1956	1450	1965	1961
1948	1132	1957	1520	1966	1991
1949	1162	1958	1571	1967	2011
1950	1186	1959	1641	1968	2091
1951	1197	1960	1741	1969	2141
1952	1250	1961	1881	1970	2151
1953	1290	1962	1941		

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 1) and (2) a local name and a NJ-WRD well number that are provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD, lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above NGVD 1929, and the height of the measuring point (MP) above or below land-surface datum is given in each well description.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level data in these reports were obtained from water-level recorders, water-level extremes recorders, and from periodic manual measurements. The equipment used at each well is described in the well description under the listing "Instrumentation." Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom). Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of the extremes (highest and lowest water levels) are unknown. In these reports the water-level extremes are given with the interim dates together with the manually measured water levels.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, wheareas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. All measurements published herein are reported to a hundredth of a foot.

Publications

Table 3 below, shows the series of water-supply papers that give ground-water level data for New Jersey, 1935 to 1974. No water-level data were published in 1975. Beginning in 1976, ground-water level data for New Jersey have been published in these annual water data reports.

Table 3.--Water-supply paper (WSP) numbers, water years, 1935-74

Year	WSP	Year	WSP	Year	WSP
1935	777	1944	1016	1953	1265
1936	817	1945	1023	1954	1321
1937	840	1946	1071	1955	1404
1938	845	1947	1096	1956-57	1537
1939	886	1948	1126	1958-62	1782
1940	906	1949	1156	1963-67	1977
1941	936	1950	1165	1968-72	2140
1942	944	1951	1191	1973-74	2164
1943	986	1952	1221		

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producting a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
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5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
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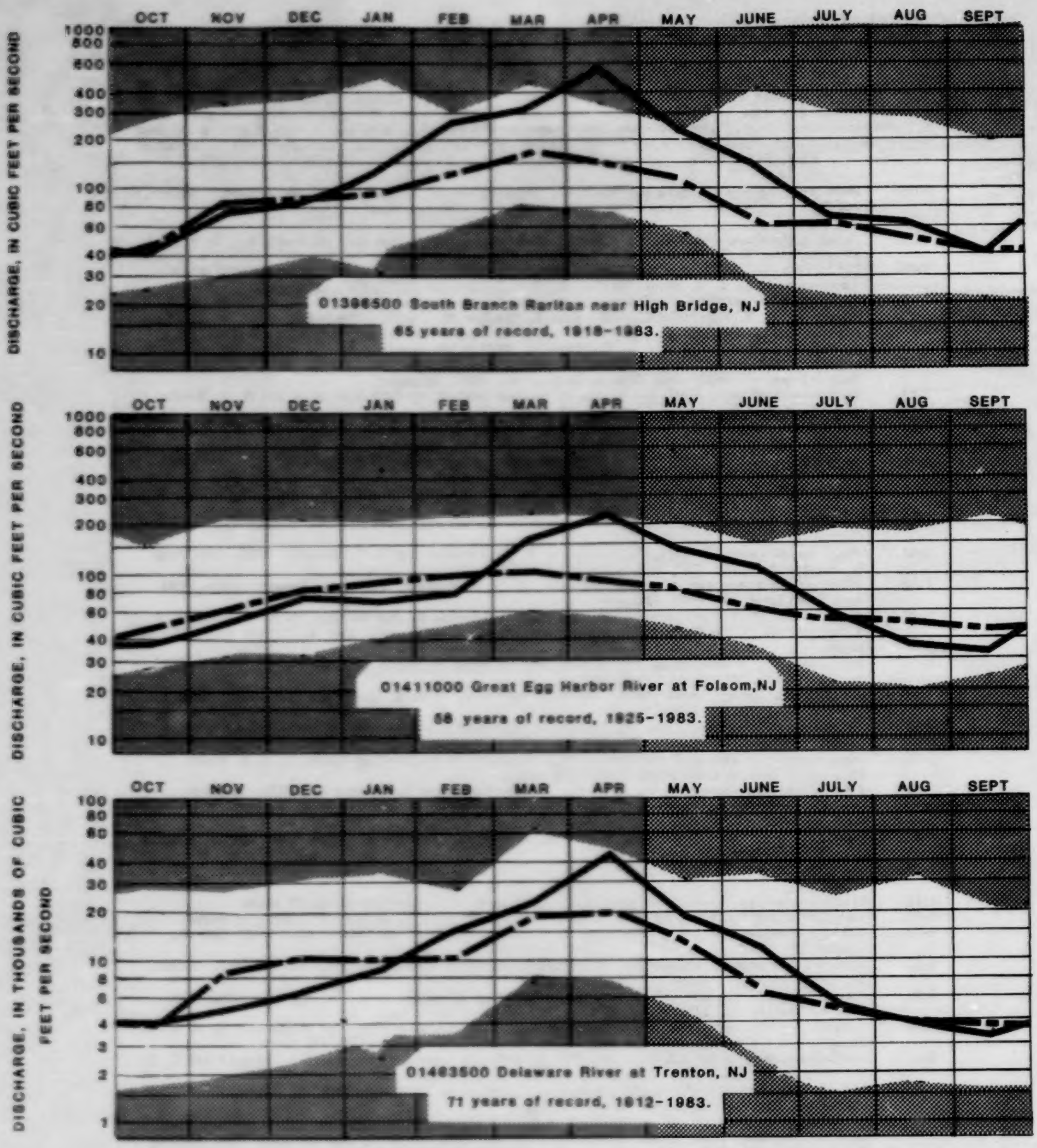


Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1983 water year.

Dashed line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-1980.

Solid line.--Indicates observed monthly mean flow for the 1983 water year.

FIGURE 2.--MONTHLY STREAMFLOW AT KEY GAGING STATIONS.

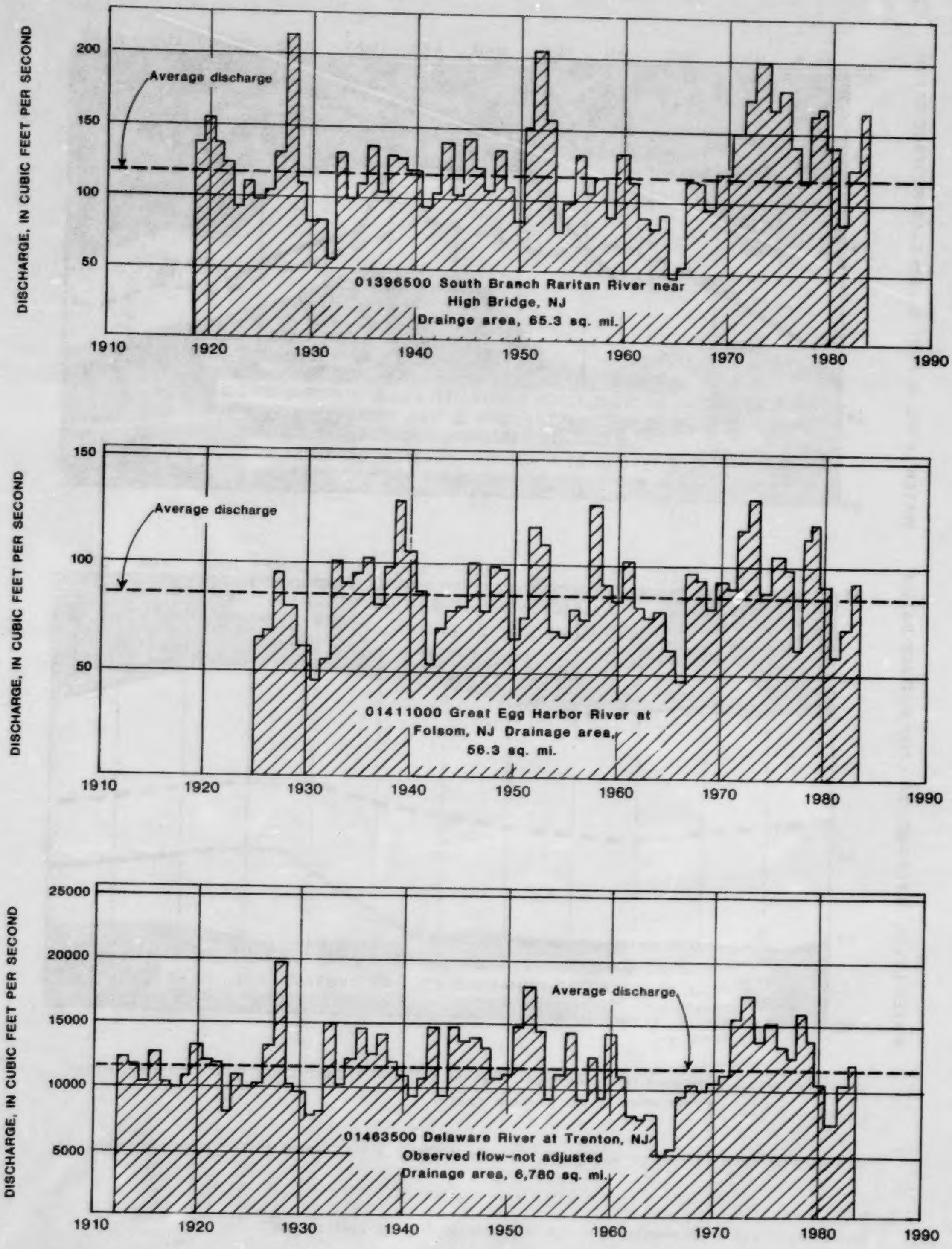
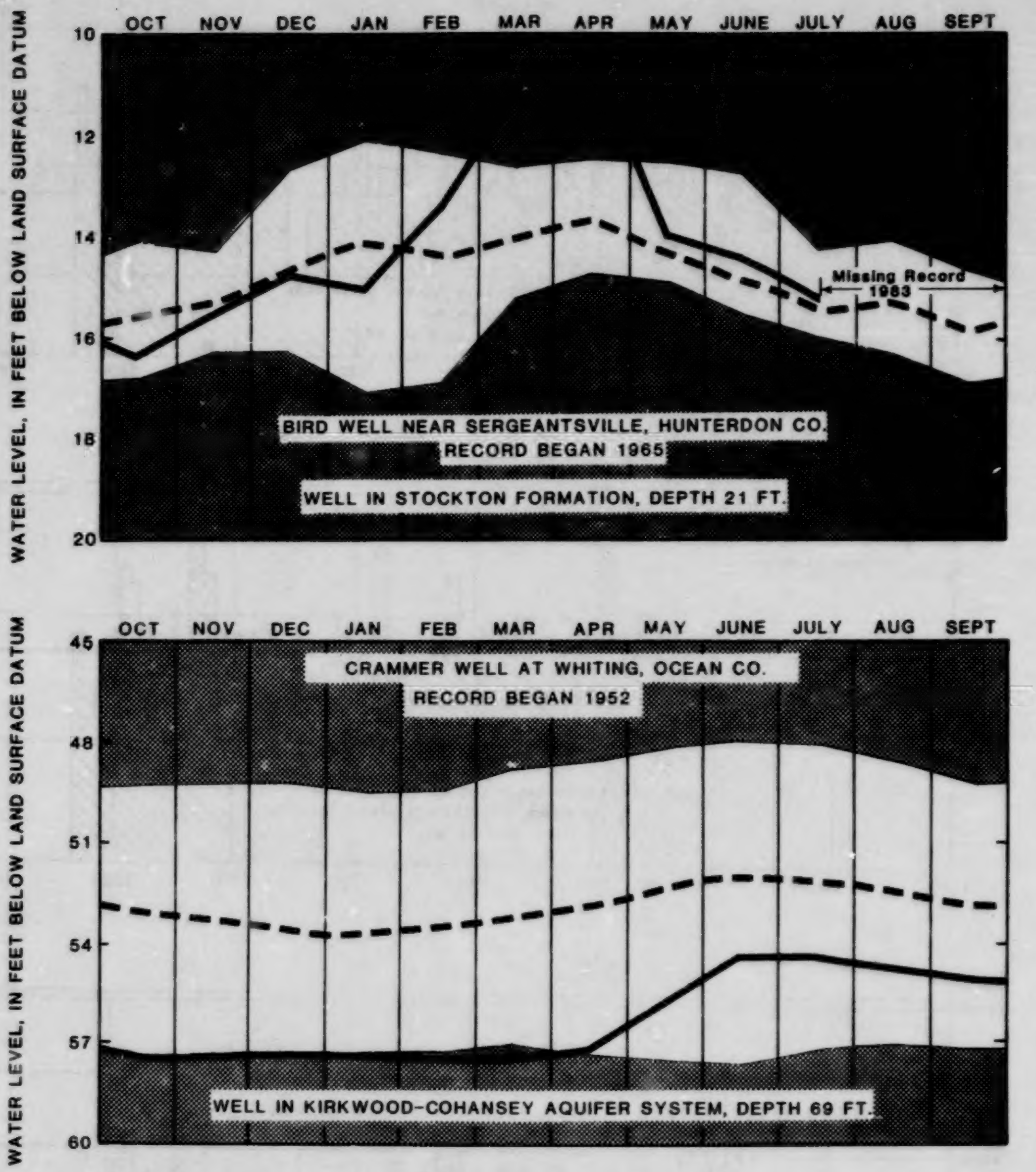


FIGURE 3.--ANNUAL MEAN DISCHARGE AT KEY GAGING STATIONS



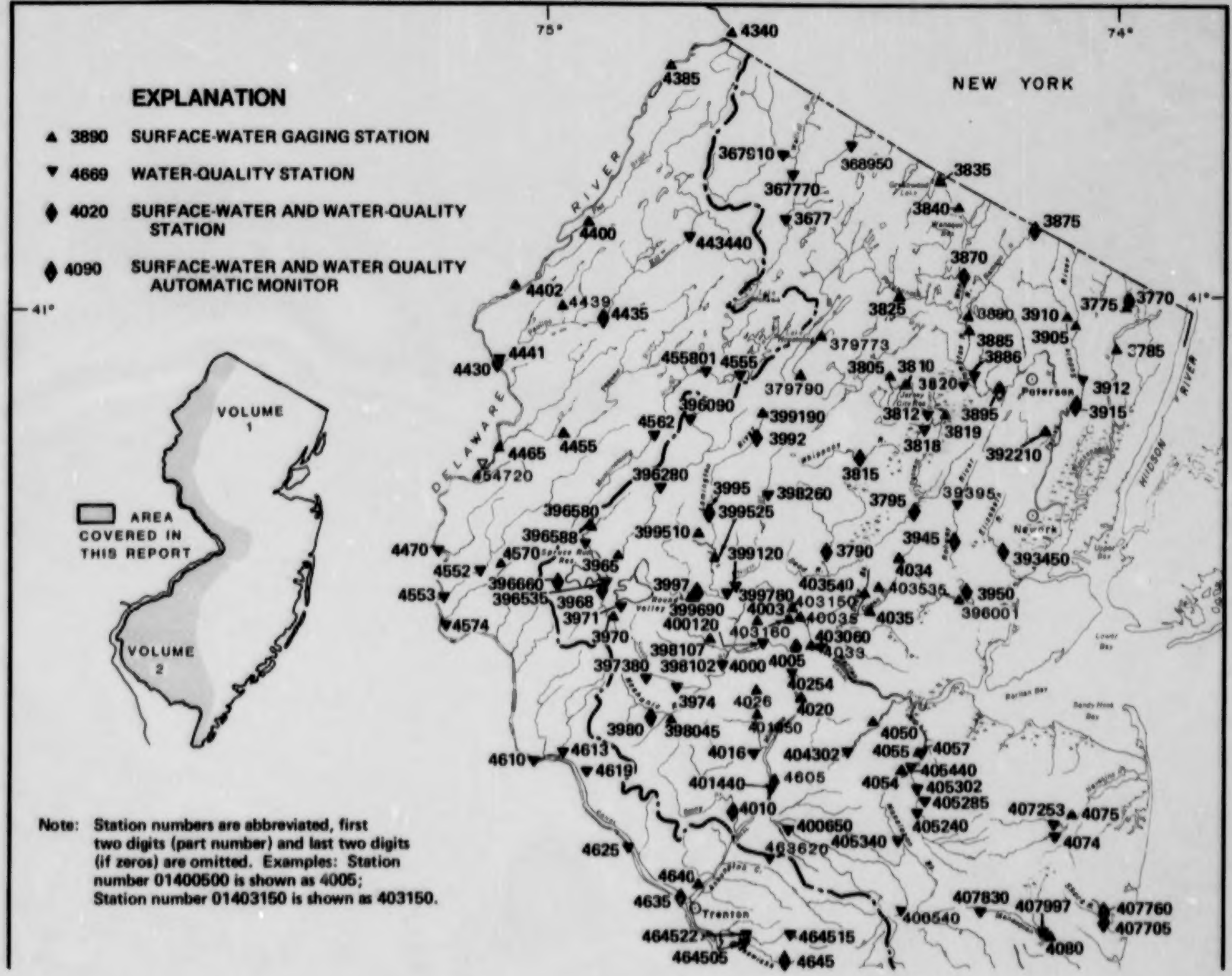
Unshaded area.--Indicates range between highest and lowest recorded monthly minimum water levels, prior to the current year.

Dashed line.--Indicates average of the monthly minimum water levels, prior to current year.

Solid line.--Indicates monthly minimum water level for the current year.

FIGURE 4.--MONTHLY GROUND-WATER LEVELS AT KEY OBSERVATION WELLS.

WATER RESOURCES DATA FOR NEW JERSEY, 1983



EXPLANATION

- ▲ 3890 SURFACE-WATER GAGING STATION
- ▼ 4669 WATER-QUALITY STATION
- ◆ 4020 SURFACE-WATER AND WATER-QUALITY STATION
- ◆ 4090 SURFACE-WATER AND WATER QUALITY AUTOMATIC MONITOR

▨ AREA COVERED IN THIS REPORT

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01400500 is shown as 4005; Station number 01403150 is shown as 403150.

75°
74°
41°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
VOLUME 1
VOLUME 2
Paterson
Newark
Trenton
Raritan Bay
Sandy Hook Bay
Lower Bay
Upper Bay
Round Valley
Spruce Run Res.
Jersey City Res.
4340
4385
367910
368950
3835
367770
3840
3677
3875
4400
443440
3870
4402
4439
4435
3825
3775
3770
3890
3910
3905
4430
4441
455801
4555
379773
3885
3886
3785
3805
3810
3820
379790
3912
396090
3812
3895
3915
4562
399190
3819
4455
3992
3818
392210
4465
454720
396280
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3995
398260
3795
39395
396580
399525
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399120
3790
393450
4552
4034
396660
3997
403540
403535
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4553
396535
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399780
403150
396001
3971
399690
4003
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403160
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403060
398107
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397380
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398045
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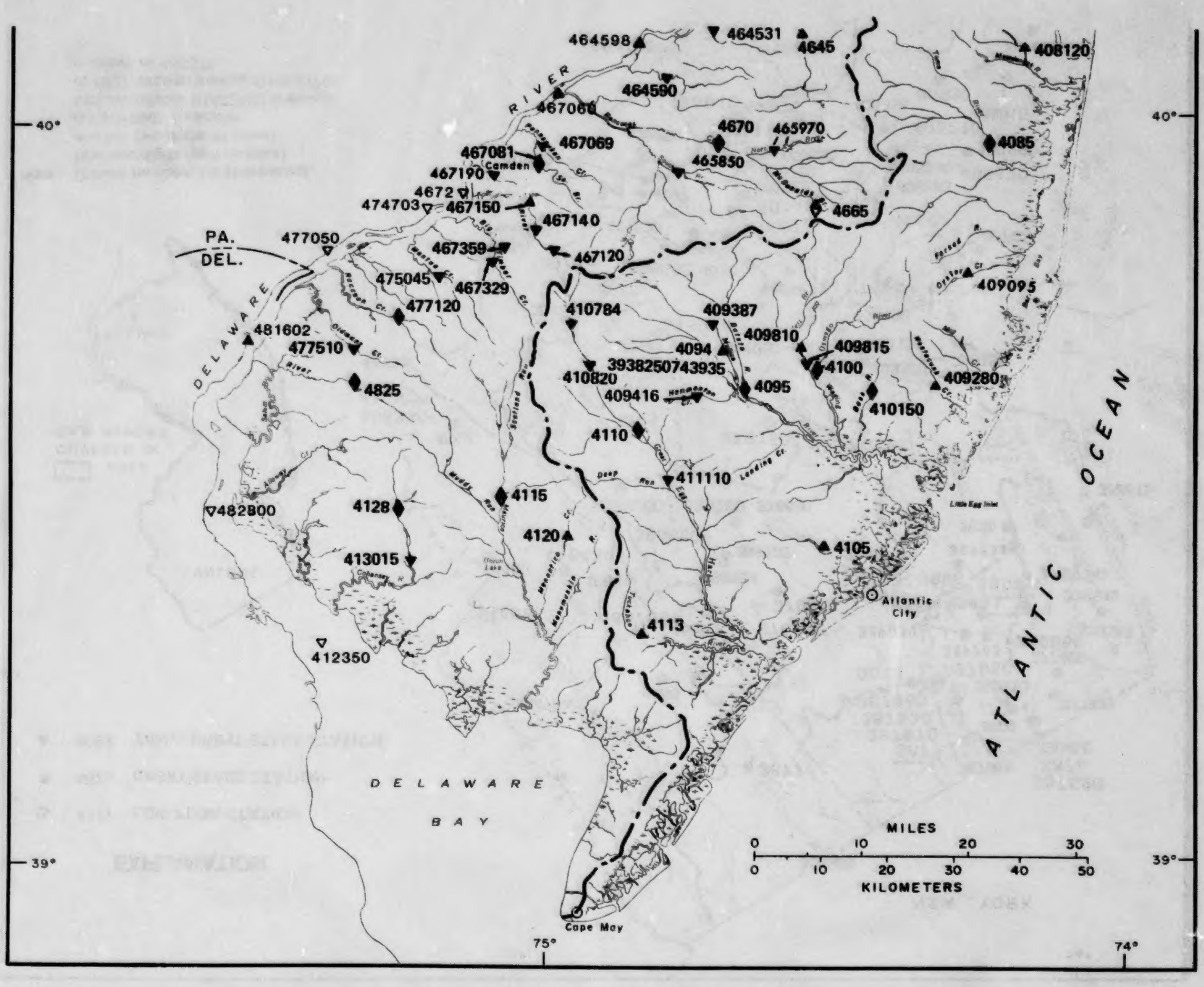
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Camden
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467190
4672
474703
467150
4665
467140
PA.
DEL.
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467120
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467329
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477120
410784
409387
DELAWARE
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409416
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OCEAN
411110
4115
Little Egg Inlet
482800
4128
4120
4105
413015
ATLANTIC
Atlantic City
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DELAWARE
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MILES
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10
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40
50
KILOMETERS
Cape May
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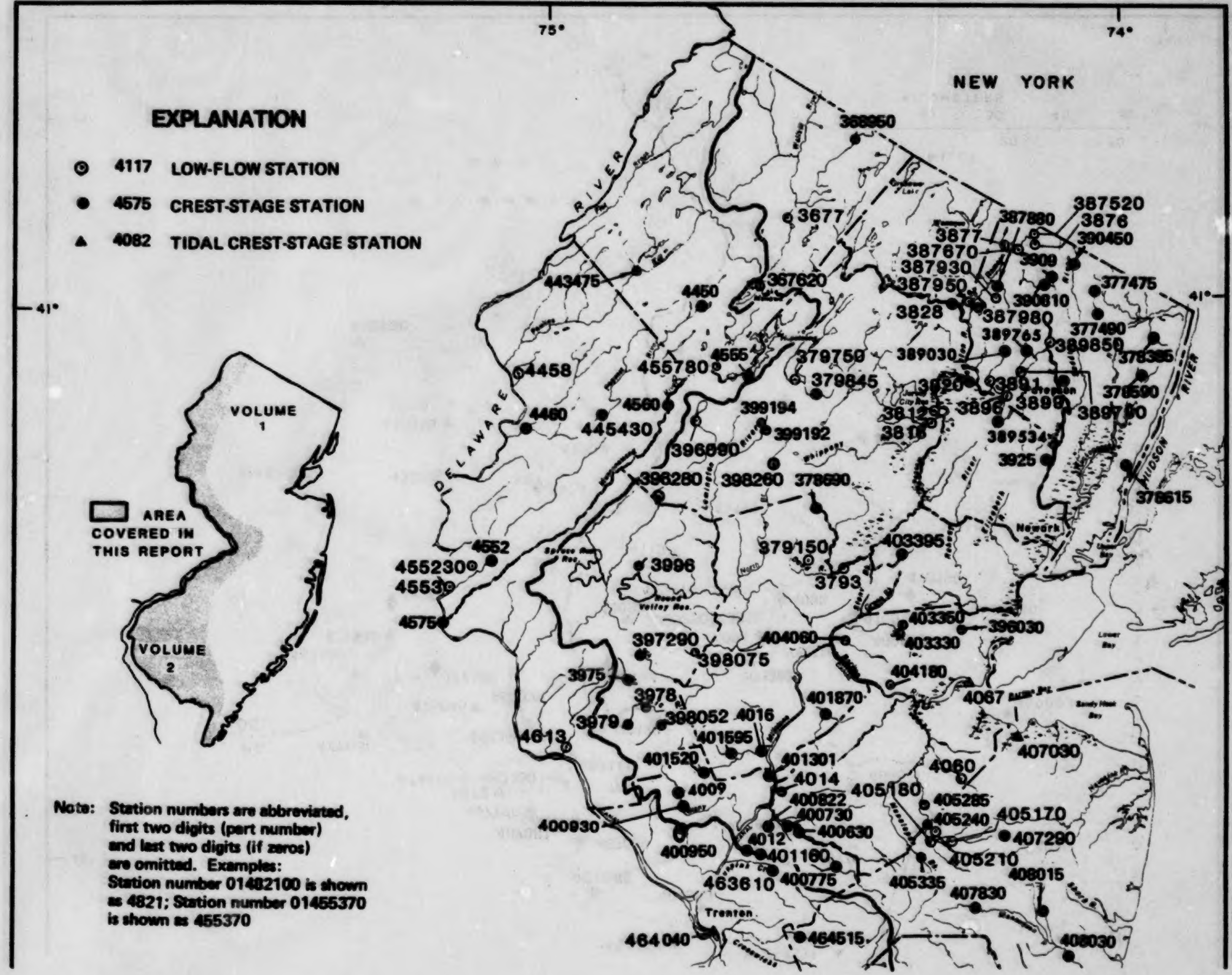
74°

Figure 5.--Location of surface-water gaging stations and water-quality stations.

WATER RESOURCES DATA FOR NEW JERSEY, 1983



75°
74°
41°
41°
NEW YORK
DELAWARE RIVER
HUDSON RIVER
Newark
Trenton
Lower Bay
Sandy Hook Bay
VOLUME 1
VOLUME 2
368950
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443475
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390450
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387930
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390810
377475
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387980
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407290
4012
400950
401160
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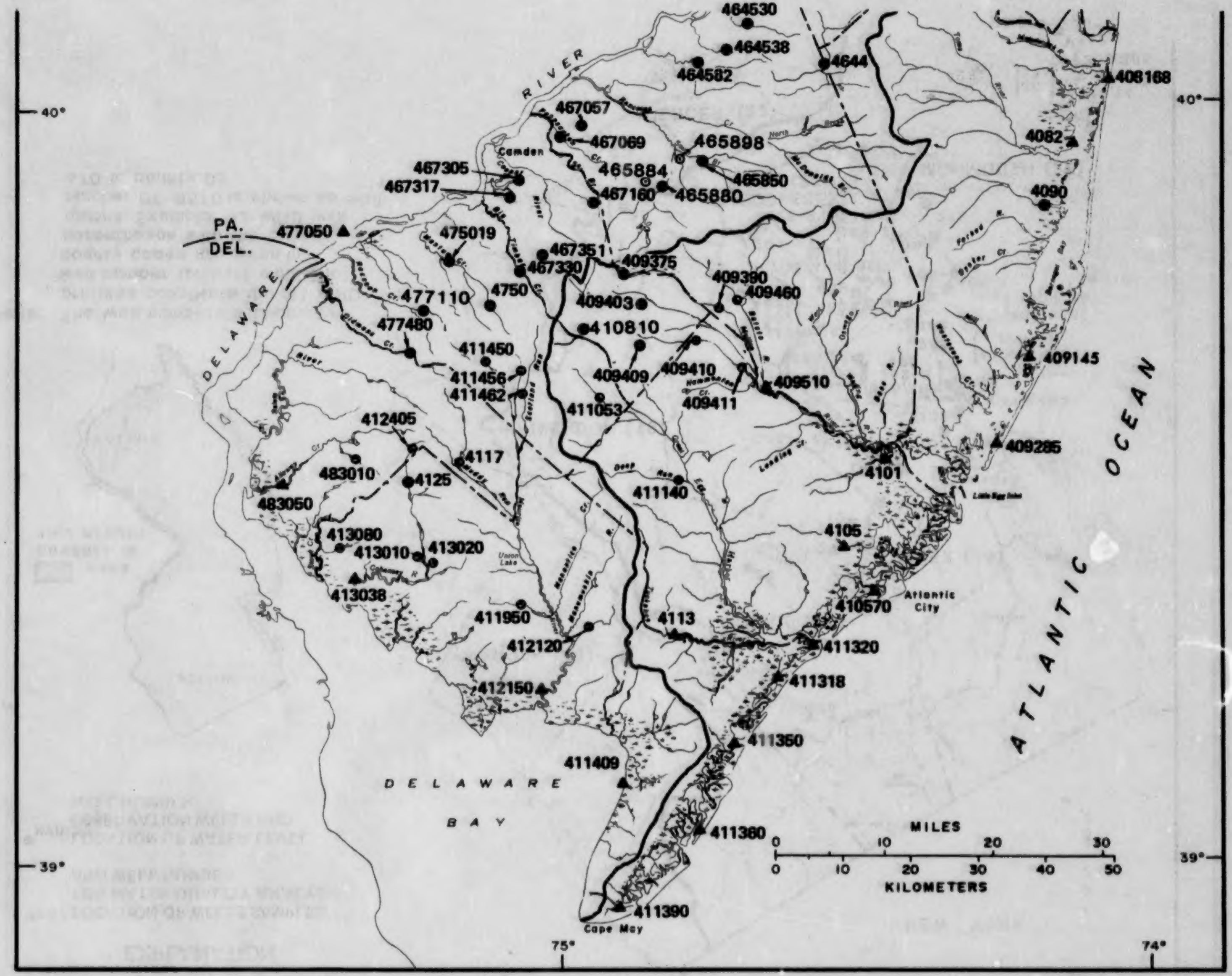
408015
463610
400775
405335
407830
464040
464515
408030

EXPLANATION

- ⊙ 4117 LOW-FLOW STATION
- ● 4575 CREST-STAGE STATION
- ▲ 4082 TIDAL CREST-STAGE STATION

▭ AREA COVERED IN THIS REPORT

Note: Station numbers are abbreviated, first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 01482100 is shown as 4821; Station number 01455370 is shown as 455370


40°
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39°
39°
75°
74°
RIVER
DELAWARE
PA.
DEL.
Camden
ATLANTIC OCEAN
DELAWARE BAY
Atlantic City
Cape May
Union Lake
MILES
0
10
20
30
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10
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30
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50
KILOMETERS
464530
464538
464582
4644
408168
467057
467069
465898
465850
465884
465880
467160
467305
467317
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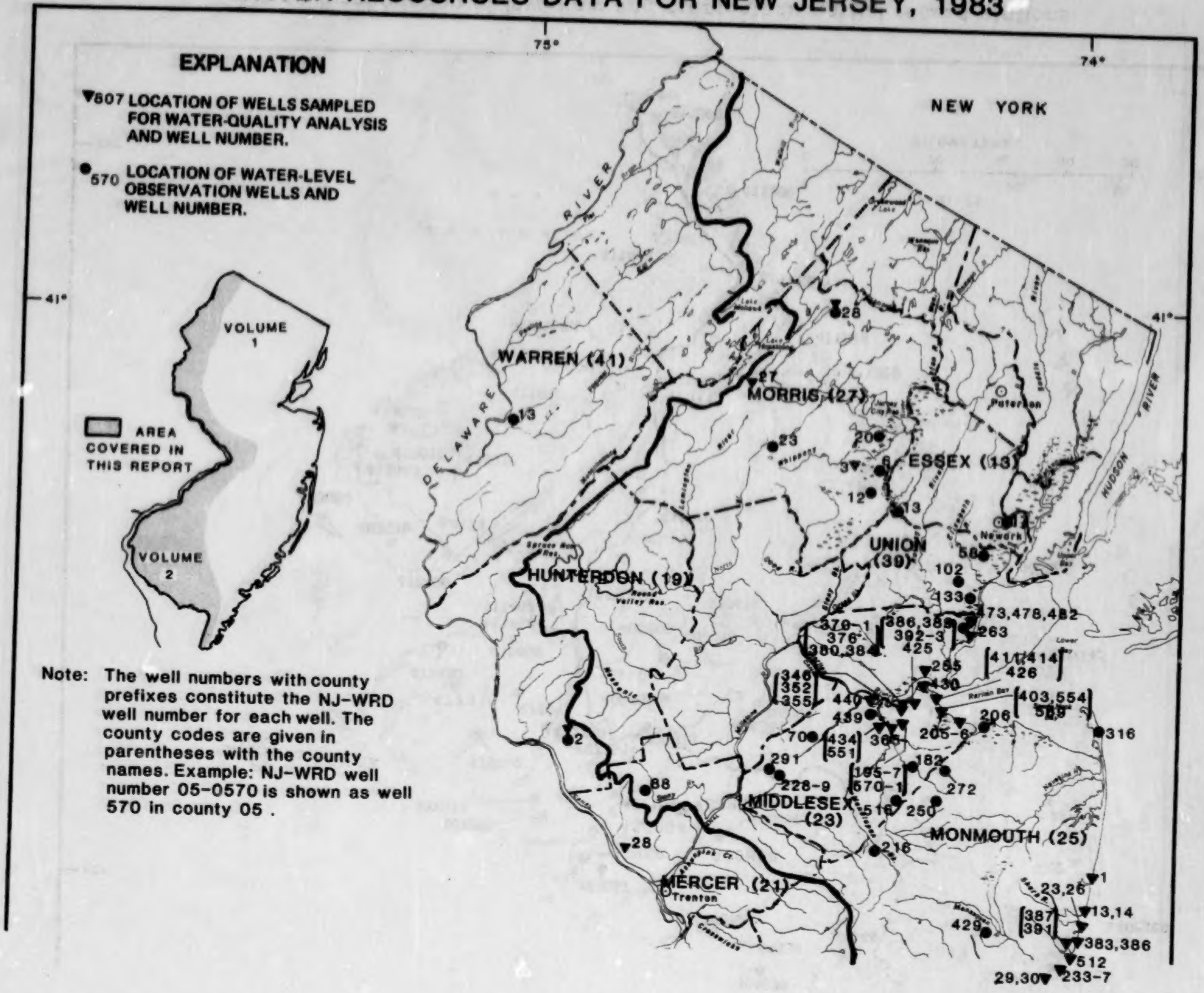
Figure 6.--Location of low-flow and crest-stage partial record stations.


75°
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NEW YORK
DELAWARE RIVER
HUDSON RIVER
VOLUME 1
VOLUME 2
WARREN (41)
MORRIS (27)
ESSEX (13)
UNION (39)
HUNTERDON (19)
MIDDLESEX (23)
MONMOUTH (25)
MERCER (21)
Paterson
Newark
Trenton
Raritan Bay
Lower Bay
13
28
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3
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58
102
133
473,478,482
263
370-1
376
380,384
386,389
392-3
425
411,414
426
255
430
346
352
355
440
439
70
434
551
365
205-6
206
403,554
559
316
291
228-9
195-7
570-1
182
272
516
250
216
2
88
28
429
1
23,26
13,14
387
391
383,386
512
29,30
233-7

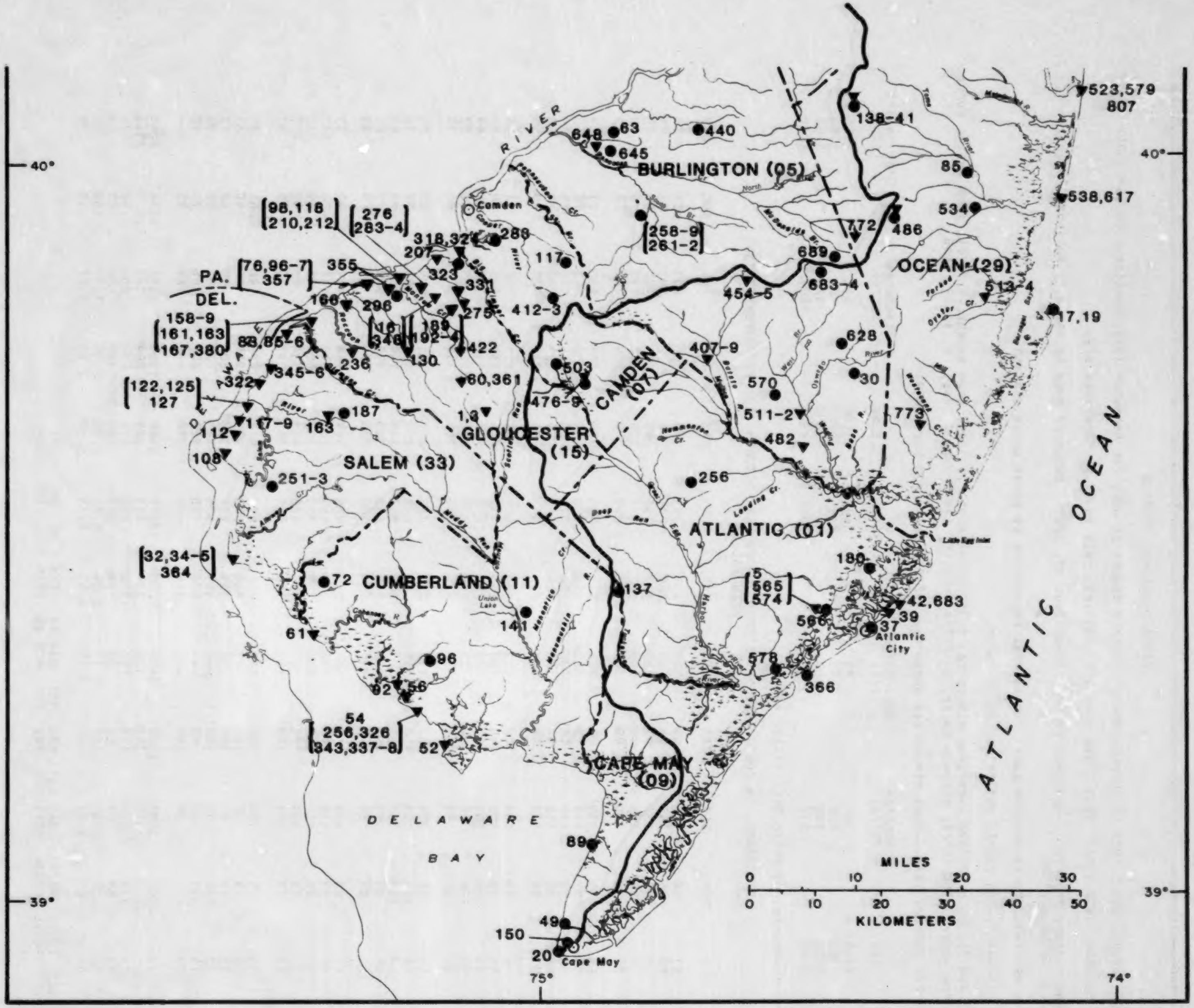
EXPLANATION

▼807 LOCATION OF WELLS SAMPLED FOR WATER-QUALITY ANALYSIS AND WELL NUMBER.

●570 LOCATION OF WATER-LEVEL OBSERVATION WELLS AND WELL NUMBER.

▨ AREA COVERED IN THIS REPORT

Note: The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 05-0570 is shown as well 570 in county 05 .


40°
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75°
74°
RIVER
Camden
PA.
DEL.
BURLINGTON (05)
OCEAN (29)
CAMDEN (07)
GLOUCESTER (15)
SALEM (33)
ATLANTIC (01)
CUMBERLAND (11)
CAPE MAY (09)
DELAWARE BAY
ATLANTIC OCEAN
Atlantic City
Cape May
Union Lake
Little Egg Inlet
523,579 807
538,617
138-41
440
648
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645
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534
486
772
258-9 261-2
689
683-4
513-4
17,19
98,116 210,212
276 283-4
318,321
207
288
117
76,96-7 357
355
323
331
166
296
275
412-3
158-9 161,163 167,380
83,85-6
16 346
189 192-4
130
422
236
345-6
122,125 127
322
60,361
503
476-9
454-5
407-9
628
30
570
511-2
482
773
112
117-9
163
187
1,3
108
251-3
256
32,34-5 364
72
137
180
5 565 574
566
42,683
39
37
61
141
96
92
56
578
366
54 256,326 343,337-8
52
89
49
150
20
MILES
0
10
20
30
KILOMETERS
0
10
20
30
40
50

Figure 7. -- Map showing location of ground-water quality stations and observation wells.

MAURICE RIVER BASIN

01411500 MAURICE RIVER AT NORMA, NJ
(National stream quality accounting network station)

LOCATION.--Lat 39°29'42", long 75°04'38", Salem County, Hydrologic Unit 02040206, on right bank just upstream from Almond Road Bridge at Norma, and 0.8 mi downstream from Blackwater Branch.

DRAINAGE AREA.--112 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1932 to current year. Monthly discharge only for December 1933, published in WSP 1302.

REVISED RECORDS.--WSP 1382: 1933. WDR NJ-79-1: 1967(P). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Dec. 27, 1937. Datum of gage is 46.94 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Occasional regulation by ponds above station.

AVERAGE DISCHARGE.--51 years, 167 ft³/s, 20.07 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,360 ft³/s Sept. 2, 1940, gage height, 8.72 ft, from rating curve extended above 3,000 ft³/s; minimum daily, 23 ft³/s Sept. 8, 1964, July 2, Sept. 7, 11-13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 23	1200	391	3.53	May 17	1100	612	3.86
Apr. 12	2200	428	3.61	May 25	0700	468	3.60
Apr. 18	0500	742	4.07	May 30	0600	423	3.51
Apr. 24	2300	537	3.73	June 21	2300	*801	4.16

Minimum discharge, 47 ft³/s Oct. 11-12, and 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	68	136	95	100	134	293	293	304	200	83	74
2	59	65	141	94	99	149	269	300	272	197	83	71
3	55	65	132	93	106	152	296	293	271	189	80	70
4	54	65	125	90	109	152	311	308	270	179	78	72
5	53	73	119	90	107	152	309	320	260	168	78	75
6	55	75	133	95	104	147	306	304	234	150	77	69
7	53	77	142	95	128	168	296	282	228	152	76	62
8	51	80	127	95	132	182	278	263	229	148	75	64
9	53	78	116	93	126	198	268	254	223	140	73	58
10	51	76	107	99	118	218	311	246	214	137	70	55
11	48	72	104	149	112	242	405	235	177	130	71	55
12	48	70	108	146	108	256	417	225	180	125	90	55
13	49	104	104	144	108	252	418	216	194	122	92	64
14	53	126	98	136	109	240	379	191	175	118	88	72
15	53	122	94	137	109	226	335	185	157	106	86	75
16	63	115	124	132	110	214	423	257	150	104	82	73
17	66	108	153	118	118	198	648	479	151	105	79	70
18	59	101	152	107	127	203	738	349	164	103	78	69
19	55	94	149	101	134	218	683	369	155	103	77	66
20	51	89	140	100	138	262	580	363	172	107	75	69
21	55	85	129	95	141	214	478	344	414	119	72	73
22	55	82	116	95	146	238	455	321	643	118	70	117
23	53	80	107	102	146	332	401	398	600	96	69	129
24	51	79	104	109	146	370	425	451	534	86	68	113
25	58	77	101	108	152	336	461	461	391	85	65	97
26	74	75	100	106	149	292	472	423	273	90	64	89
27	76	74	99	104	147	235	503	382	244	92	60	81
28	78	74	97	102	136	319	474	353	200	90	60	77
29	77	126	98	100	---	327	405	353	220	87	77	73
30	74	134	100	98	---	326	338	408	207	86	76	73
31	71	---	98	100	---	314	---	360	---	84	76	---
TOTAL	1812	2609	3653	3328	3465	7266	12375	9986	7906	3816	2348	2260
MEAN	58.5	87.0	118	107	124	234	413	322	264	123	75.7	75.3
MAX	78	134	153	149	152	370	738	479	643	200	92	129
MIN	48	65	94	90	99	134	268	185	150	84	60	55
CFSM	.52	.78	1.05	.96	1.11	2.09	3.69	2.88	2.36	1.10	.68	.67
IN.	.60	.87	1.21	1.11	1.15	2.41	4.11	3.32	2.63	1.27	.78	.75

CAL YR 1982 TOTAL 44301 MEAN 121 MAX 361 MIN 43 CFSM 1.08 IN. 14.71
WTR YR 1983 TOTAL 60824 MEAN 167 MAX 738 MIN 48 CFSM 1.49 IN. 20.20

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923, 1953, 1960-62, 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to current year.
WATER TEMPERATURES: October 1966 to January 1968 (once daily), January 1980 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to January 1968.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Missing continuous water-quality records are the result of malfunction of the instrument.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 119 micromhos Jan. 24, 1982; minimum, 52 micromhos June 16, 1982.
WATER TEMPERATURE: Maximum, 28°C July 21, 1980; minimum 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 101 micromhos Dec. 16; minimum, 56 micromhos June 22.
WATER TEMPERATURES: Maximum, 27.0°C July 18; minimum, 0.5°C on January 19, 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 22...	0915	83	74	6.5	10.5	1.1	10.0	89	1.1	K19	1400
JAN 11...	1105	152	76	6.1	8.5	5.0	9.8	84	.9	200	>2000
MAR 29...	1115	327	62	5.3	8.0	1.4	10.2	85	.9	100	300
MAY 03...	1110	295	73	5.8	20.0	1.1	6.8	75	1.1	45	1200
JUL 27...	1200	93	76	6.7	22.5	1.9	8.1	93	3.6	47	2700
SEP 27...	1230	81	74	6.5	15.5	1.3	9.0	89	.6	K22	K800

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 22...	19	3.7	2.4	5.7	1.4	6.0	12	9.1	<.10	6.7	57
JAN 11...	18	3.8	2.1	5.6	1.3	4.0	11	8.0	<.10	6.5	60
MAR 29...	18	3.8	2.0	4.0	1.4	2.0	17	7.0	<.10	4.1	65
MAY 03...	17	3.8	1.9	4.6	2.0	4.0	17	8.0	<.10	.6	73
JUL 27...	19	4.0	2.3	6.4	1.8	9.0	2.0	9.1	.10	5.4	78
SEP 27...	20	4.1	2.4	5.6	2.0	9.0	9.8	8.7	<.10	5.1	55

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 22...	8	1.8	35	1.50	.060	.50	.020	.010	<.010	6.6
JAN 11...	9	3.7	72	1.50	.050	.50	.190	<.010	<.010	5.6
MAR 29...	6	5.3	25	1.00	.030	.30	.010	<.010	<.010	11
MAY 03...	3	2.4	82	.790	.020	.50	.020	.020	.020	11
JUL 27...	2	.50	100	1.50	.030	.50	.060	.030	.030	7.4
SEP 27...	1	.22	50	1.60	.010	.90	.020	.010	.010	5.0

01411500 MAURICE RIVER AT NORMA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 22...	0915	140	150	74	<1	<1	--	<3	1	140	2
JAN 11...	1105	130	67	74	<1	<1	<1	<3	4	190	2
MAY 03...	1110	210	160	71	<1	<1	<1	<3	3	320	3
SEP 27...	1230	40	160	87	0	1	<1	3	1	73	4

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 22...	7	20	.1	<10	1	<1	1	21	<6	10
JAN 11...	<4	30	.1	10	1	--	<1	27	<6	12
MAY 03...	<4	39	.4	<10	7	<1	<1	24	<6	22
SEP 27...	4	19	<.1	10	<1	<1	<1	26	17	7

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	70	68	69	70	68	69	76	74	75	84	82	82
2	70	69	70	78	69	74	77	73	75	83	81	82
3	70	69	70	78	77	77	77	75	76	82	81	82
4	70	69	70	78	76	77	78	76	77	82	80	81
5	71	69	70	77	75	76	78	76	77	83	81	82
6	73	71	72	76	74	75	79	74	77	84	81	83
7	72	71	72	76	74	75	77	74	75	85	82	83
8	72	70	71	74	72	73	77	75	76	85	81	83
9	72	70	71	75	73	74	77	76	76	83	82	82
10	72	70	71	75	73	74	80	78	79	84	81	82
11	71	70	70	75	73	74	79	76	78	85	77	80
12	71	70	71	77	75	76	79	75	77	83	81	82
13	71	69	70	85	72	78	79	78	79	83	81	82
14	70	68	69	79	76	78	80	77	78	84	80	82
15	70	68	69	76	73	75	92	79	85	86	80	82
16	69	67	68	78	73	75	101	79	90	85	80	82
17	72	67	70	77	73	75	80	76	78	86	80	84
18	72	70	71	74	72	73	82	80	81	86	80	84
19	71	69	70	74	70	71	80	78	79	86	80	85
20	71	69	70	76	73	74	79	77	78	88	86	87
21	73	69	71	75	73	74	81	78	80	89	87	88
22	71	68	69	76	74	75	83	81	82	89	87	88
23	69	68	69	76	74	75	84	82	83	88	86	87
24	70	68	69	77	75	76	83	81	82	87	84	85
25	69	67	68	77	74	76	86	83	84	86	79	83
26	68	66	67	78	76	77	84	82	83	84	78	81
27	66	64	65	77	75	76	83	82	82	82	78	81
28	65	64	64	78	76	77	83	81	82	82	80	81
29	67	65	65	78	72	75	83	81	82	82	78	81
30	67	66	67	76	73	74	82	81	82	82	78	81
31	70	66	68	---	---	---	83	81	82	83	78	80
MONTH	73	64	69	85	68	75	101	73	80	89	77	83

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	84	79	80	80	74	76	66	64	65	71	68	69
2	83	77	80	80	74	77	67	65	66	71	69	70
3	83	77	80	78	74	77	68	64	65	74	70	72
4	84	77	80	79	75	77	66	64	65	74	71	72
5	83	78	79	78	74	77	64	63	64	72	70	71
6	83	78	80	78	74	77	64	63	63	73	70	72
7	93	78	84	78	73	75	65	63	64	74	73	73
8	87	78	82	75	68	71	66	64	65	75	74	74
9	83	78	81	72	67	70	66	64	65	75	73	74
10	83	78	81	71	68	69	65	59	61	77	75	76
11	83	76	79	70	69	70	61	60	61	76	74	75
12	83	76	79	70	69	69	63	61	62	77	75	76
13	82	76	78	72	69	70	62	61	61	77	76	76
14	84	78	82	72	70	71	62	61	61	80	76	78
15	88	83	85	73	70	72	64	62	63	79	77	78
16	100	88	93	74	71	73	64	58	60	78	67	73
17	90	85	87	73	72	72	60	59	59	66	62	64
18	87	83	85	73	66	71	60	58	59	67	65	66
19	83	76	81	68	64	66	60	58	59	67	66	66
20	81	76	77	69	66	68	62	59	61	69	67	68
21	81	76	79	67	63	65	66	63	64	70	67	69
22	80	74	77	64	63	64	68	63	66	70	67	69
23	82	76	80	65	64	65	67	66	66	67	65	65
24	82	76	81	66	64	65	67	64	65	65	63	64
25	81	75	78	68	65	66	65	63	64	63	61	62
26	83	76	80	71	66	69	65	64	65	63	61	62
27	82	76	79	70	64	68	65	63	64	64	62	63
28	81	74	78	66	62	64	66	64	65	65	63	64
29	---	---	---	66	63	64	68	66	67	65	63	64
30	---	---	---	64	63	64	70	67	68	66	62	64
31	---	---	---	64	63	64	---	---	---	68	66	66
MONTH	100	74	81	80	62	70	70	58	63	80	61	70

01411500 MAURICE RIVER AT NORMA, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	67	65	67	73	72	73	79	77	78	79	78	79
2	68	67	67	76	73	75	82	78	79	79	76	78
3	69	67	68	76	72	74	79	76	78	81	76	78
4	71	69	69	77	74	75	80	76	79	78	76	77
5	72	70	71	81	76	77	80	78	79	79	75	78
6	73	71	72	82	78	80	79	78	78	78	77	77
7	73	71	72	79	77	78	82	75	79	78	75	77
8	73	72	72	81	76	78	80	78	79	81	78	80
9	73	72	72	79	77	78	82	78	79	79	76	77
10	73	71	72	80	74	79	87	78	81	77	75	76
11	76	72	74	77	76	76	82	79	81	78	77	77
12	77	75	76	78	77	79	84	79	82	78	77	77
13	76	73	75	83	75	79	84	81	82	79	75	76
14	78	74	76	78	76	77	82	80	81	76	74	75
15	79	75	77	82	77	79	80	80	80	75	73	74
16	82	76	78	82	79	80	81	80	81	74	73	74
17	85	78	82	79	77	78	82	80	81	75	73	74
18	85	79	82	78	77	78	82	80	81	75	74	74
19	86	83	84	79	78	78	82	80	81	75	72	74
20	86	76	83	79	73	77	81	80	80	75	73	74
21	74	58	65	76	74	75	81	80	80	76	73	74
22	60	56	58	79	73	76	81	79	80	85	78	81
23	62	59	60	78	70	73	81	80	80	79	76	78
24	64	61	62	87	78	83	81	79	80	82	75	79
25	69	63	65	89	77	84	80	79	79	82	76	81
26	69	67	68	86	74	80	81	78	79	85	81	83
27	75	69	71	81	77	79	81	77	80	82	77	79
28	74	72	73	79	78	78	83	77	80	79	78	79
29	73	69	70	82	76	79	80	76	79	78	76	77
30	74	70	72	83	74	78	82	75	79	77	75	75
31	---	---	---	81	75	78	79	75	79	---	---	---
MONTH	86	56	72	89	70	78	87	75	80	85	72	77
YEAR	101	56	75									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBE 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	17.5	18.0	14.5	12.5	13.5	9.0	8.0	8.5	7.0	6.0	6.5
2	19.0	17.5	18.0	15.5	14.0	14.5	9.5	9.0	9.5	6.5	6.0	6.5
3	18.0	15.5	17.0	16.5	14.5	15.5	10.0	9.5	10.0	6.5	5.0	6.0
4	18.5	16.5	17.5	17.5	15.5	16.5	12.0	10.0	11.5	5.0	4.0	4.5
5	19.0	17.0	18.0	17.0	12.5	15.0	13.5	11.5	12.5	5.5	4.5	4.5
6	19.5	18.0	18.5	12.5	10.5	11.5	14.5	13.0	14.0	6.0	5.0	5.5
7	19.5	18.0	18.5	10.5	9.0	10.0	13.5	11.0	12.5	6.5	5.0	5.5
8	20.0	18.5	19.5	11.0	8.5	10.0	10.5	9.5	10.0	6.5	5.5	6.0
9	20.5	19.0	19.5	11.0	9.5	10.5	9.5	7.0	8.5	6.0	5.0	5.5
10	18.5	16.0	17.5	10.5	9.5	10.0	6.5	5.0	5.5	8.5	6.0	7.0
11	15.5	13.5	14.5	10.5	8.5	9.5	6.0	6.0	6.0	9.0	8.0	8.5
12	15.5	15.0	15.5	12.5	10.0	11.5	6.0	2.0	3.5	8.0	6.0	7.5
13	16.0	15.0	15.5	12.5	10.0	11.5	2.5	1.0	2.0	5.5	3.5	4.5
14	16.5	15.5	16.0	10.0	8.5	9.5	3.5	1.5	2.5	4.0	2.5	3.5
15	16.0	14.5	15.5	9.5	8.0	9.0	5.0	3.0	4.0	4.5	4.0	4.5
16	15.5	14.0	15.0	7.5	6.5	7.0	7.5	5.0	6.5	4.0	3.0	4.0
17	13.5	12.0	12.5	7.5	6.0	7.0	6.0	4.0	5.0	3.0	2.0	2.5
18	12.0	10.0	11.0	8.0	6.5	7.0	4.0	3.0	3.0	---	---	---
19	13.0	11.0	12.0	9.0	8.0	8.5	3.5	3.0	3.5	1.5	.5	---
20	14.0	12.0	13.0	9.5	8.5	9.0	4.0	3.5	4.0	1.5	.5	1.0
21	15.0	13.5	14.5	11.5	9.5	10.5	4.5	3.5	4.0	3.0	1.0	1.5
22	13.5	12.0	12.5	12.0	10.5	11.0	4.5	3.5	4.0	3.0	1.5	2.0
23	11.5	10.5	11.0	12.5	11.5	12.0	5.0	3.5	4.5	5.5	2.0	4.5
24	11.0	9.5	10.5	12.0	10.0	11.5	6.5	5.0	5.5	5.0	4.5	5.0
25	11.0	10.5	10.5	9.5	8.0	8.5	8.5	6.0	7.0	5.0	4.0	4.5
26	11.5	10.5	11.0	9.0	7.0	8.0	10.0	8.5	9.5	5.0	4.0	4.5
27	11.0	9.5	10.5	9.0	7.0	8.5	9.5	8.5	9.0	5.0	4.0	4.5
28	11.5	10.0	11.0	6.5	5.5	6.0	10.5	9.0	9.5	4.5	3.5	4.0
29	12.0	10.0	11.0	9.0	7.0	8.0	10.5	10.0	10.5	4.0	2.5	3.5
30	12.5	10.5	11.5	9.0	8.0	8.5	9.5	7.5	8.0	5.0	2.5	4.0
31	13.5	11.0	12.5	---	---	---	7.5	6.5	7.0	5.0	4.0	4.5
MONTH	20.5	9.5	14.5	17.5	5.5	10.5	14.5	1.0	7.0	9.0	.5	4.5

01411500 MAURICE RIVER AT NORMA, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.0	4.5	6.5	5.5	6.0	10.0	6.5	8.0	21.0	18.0	19.5
2	7.0	4.5	5.5	9.0	6.5	7.5	9.5	7.5	8.5	21.0	18.5	19.5
3	8.5	7.5	8.0	9.5	7.0	8.5	13.0	9.0	11.0	21.5	19.5	20.0
4	7.5	5.0	6.5	10.5	7.5	9.0	13.0	11.0	12.0	20.0	18.0	19.0
5	5.0	3.0	---	10.5	9.0	9.5	13.0	10.5	12.0	18.5	16.0	17.0
6	---	---	---	10.5	9.0	9.5	12.5	11.0	12.0	18.0	15.5	16.5
7	---	---	---	11.0	10.0	10.5	13.0	11.5	12.5	18.0	15.0	16.5
8	3.5	2.5	3.0	9.5	8.0	9.0	13.5	12.5	13.0	18.5	15.5	17.0
9	3.5	2.0	3.0	8.0	8.0	8.0	13.5	11.5	13.0	17.5	15.0	16.0
10	3.0	1.5	---	8.0	7.5	8.0	11.5	10.5	11.0	16.0	13.0	14.5
11	---	---	---	8.0	7.5	8.0	11.5	10.5	10.5	16.0	13.5	15.0
12	---	---	---	7.5	6.0	6.5	12.0	9.5	11.0	15.5	13.0	14.5
13	---	---	---	8.0	5.0	6.5	13.0	10.0	11.5	17.0	13.5	15.0
14	3.5	1.5	2.5	9.0	5.5	7.5	12.5	10.5	11.5	18.5	15.0	17.0
15	4.5	2.5	3.5	11.0	7.5	9.0	14.0	11.5	13.0	19.5	16.5	18.0
16	5.0	3.0	4.0	11.0	8.5	9.5	13.5	10.5	12.0	18.0	14.0	16.5
17	5.0	4.0	4.5	9.5	8.5	9.0	12.0	9.0	10.5	14.5	13.5	14.0
18	6.0	4.0	5.0	9.5	8.5	9.0	11.0	10.0	10.5	15.0	13.0	14.0
19	6.0	4.0	5.0	11.0	10.0	10.5	10.0	7.0	9.0	15.5	14.0	14.5
20	6.5	3.5	5.0	12.5	10.0	11.0	7.0	5.5	6.5	16.0	15.0	15.5
21	6.5	4.0	5.0	12.5	11.0	11.5	10.0	6.0	8.0	17.0	16.0	16.5
22	7.5	5.0	6.0	11.5	8.5	10.0	11.5	8.0	10.0	17.0	16.5	17.0
23	7.5	6.0	7.0	8.5	6.5	7.5	13.5	9.5	11.5	18.5	16.5	17.5
24	7.5	5.5	6.5	7.0	5.5	6.5	13.0	11.5	12.5	19.0	18.0	18.5
25	6.5	5.5	6.0	6.5	4.5	5.5	12.5	9.5	11.0	18.5	17.0	18.0
26	5.5	4.0	5.0	7.5	4.0	6.0	13.0	9.0	11.0	18.5	17.5	18.0
27	5.0	2.5	4.0	7.5	6.0	6.5	14.0	11.0	12.5	18.0	17.0	17.5
28	6.0	3.0	4.5	9.0	7.5	8.5	17.5	13.0	15.5	17.5	16.5	17.0
29	---	---	---	9.5	7.5	8.5	19.0	16.0	17.5	17.0	16.5	17.0
30	---	---	---	8.5	6.0	7.5	20.5	17.5	18.5	18.0	17.0	17.5
31	---	---	---	8.0	6.5	7.0	---	---	---	18.0	17.5	17.5
MONTH	8.5	1.5	5.0	12.5	4.0	8.5	20.5	5.5	11.5	21.5	13.0	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.0	16.5	17.5	22.5	20.0	21.0	25.5	23.5	24.5	23.5	21.5	22.5
2	18.5	16.5	17.5	24.0	21.0	22.5	25.5	24.0	24.5	23.0	21.5	22.0
3	19.0	17.5	18.0	25.5	22.5	24.0	25.5	23.0	24.5	22.5	20.5	21.5
4	19.5	18.0	18.5	26.0	24.0	25.0	24.5	23.0	24.0	23.0	21.0	22.0
5	21.0	18.5	19.5	25.0	23.5	24.0	24.5	23.0	24.0	24.0	21.5	22.5
6	21.0	19.0	20.0	24.5	23.5	24.0	24.5	22.5	23.5	25.0	22.5	23.5
7	22.0	20.5	21.0	23.5	22.0	23.0	25.5	23.0	24.5	24.5	19.5	23.5
8	22.0	20.5	21.0	24.0	21.5	22.5	26.0	24.0	25.0	23.0	22.0	22.5
9	21.0	19.5	20.0	23.5	21.5	23.0	26.0	24.0	25.0	21.5	20.0	21.0
10	20.5	18.0	19.5	23.5	21.5	22.5	25.0	23.0	24.0	23.0	20.0	21.5
11	21.0	18.0	19.5	23.0	20.5	22.0	24.5	22.5	23.5	24.0	21.5	22.5
12	22.5	19.0	21.0	23.5	21.0	22.5	24.0	22.0	23.0	23.5	22.0	23.0
13	23.5	21.0	22.5	24.5	22.0	23.5	22.5	20.5	21.5	23.0	18.0	21.0
14	24.0	22.0	23.0	25.0	22.5	23.5	21.5	19.0	20.0	20.0	18.5	19.5
15	24.0	21.0	22.5	24.5	22.5	24.0	21.5	19.0	20.5	19.0	17.0	18.0
16	24.5	21.5	23.0	26.0	23.5	25.0	22.0	19.5	21.0	18.0	16.0	17.5
17	24.0	22.0	23.0	26.5	24.5	25.5	22.0	19.5	21.0	19.5	17.0	18.5
18	24.0	22.0	23.0	27.0	24.5	26.0	22.5	20.5	21.5	20.0	18.0	19.0
19	23.5	22.5	23.0	26.0	25.0	25.5	23.5	21.5	22.5	21.0	18.5	20.0
20	22.5	21.0	22.0	26.0	24.0	25.0	25.0	21.0	23.0	22.0	20.0	21.0
21	21.0	20.0	20.5	26.5	24.5	25.5	24.5	22.5	23.5	21.5	20.5	21.5
22	20.5	19.0	20.0	26.0	23.5	24.5	24.0	21.5	23.0	20.5	18.5	19.0
23	20.5	19.5	20.5	23.5	21.5	22.5	23.5	22.5	23.0	18.0	16.5	17.5
24	21.5	20.0	21.0	24.0	22.5	23.0	23.5	21.5	22.5	17.0	15.5	16.0
25	22.5	21.0	21.5	23.5	22.0	23.0	23.0	20.5	22.0	16.5	14.5	15.5
26	22.0	19.5	21.0	24.0	22.0	23.0	22.5	20.0	21.5	16.0	14.5	15.5
27	23.5	20.5	22.0	24.0	21.5	23.0	23.0	20.0	21.5	17.0	14.5	16.0
28	23.5	22.0	23.0	24.5	22.5	23.5	22.5	21.0	21.5	18.0	16.0	17.0
29	22.5	21.0	21.5	24.5	22.0	23.5	23.5	21.5	22.5	17.0	15.5	16.5
30	22.0	19.5	21.0	25.0	23.0	24.0	23.5	22.0	22.5	16.5	16.0	16.5
31	---	---	---	26.0	23.5	24.5	23.0	22.0	22.5	---	---	---
MONTH	24.5	16.5	21.0	27.0	20.0	23.5	26.0	19.0	23.0	25.0	14.5	20.0
YEAR	27.0	.5	14.0									

01412000 MENANTICO CREEK NEAR MILLVILLE, NJ

LOCATION.--Lat 39°25'12", long 74°58'00", Cumberland County, Hydrologic Unit 02040206, on right bank at upstream side of Mays Landing Road (State Route 552), 0.9 mi downstream of Menantico Lake, 4.0 mi northeast of Millville, and 7.0 mi upstream from mouth.

DRAINAGE AREA.--23.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1931 to September 1957, October 1977 to current year. Published as "Manantico Creek" prior to October 1978.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 36.63 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good, except those for summer months, which are poor. Occasional regulation from unknown source.

AVERAGE DISCHARGE.--32 years (water years 1932-57, 1978-83), 37.2 ft³/s, 22.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s Aug. 20, 1939, gage height, 6.21 ft, from rating curve extended above 300 ft³/s; minimum, 1.4 ft³/s Aug. 16-18, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 11	1300	159	2.85	Apr. 25	1130	137	2.63
Apr. 17	0845	*200	3.20	May 24	0600	151	2.78

Minimum daily discharge, 7.6 ft³/s July 19 and Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	11	40	21	18	24	53	69	74	37	13	12
2	9.1	14	34	20	17	29	48	68	65	34	13	12
3	9.2	13	43	20	19	30	68	67	56	31	14	12
4	9.3	13	29	19	20	26	94	75	55	28	16	12
5	9.3	13	14	18	19	24	73	81	53	27	18	11
6	9.4	13	22	20	18	23	61	74	48	27	14	11
7	9.4	12	28	20	24	27	55	67	45	26	11	11
8	9.5	12	27	20	29	38	55	63	44	26	10	11
9	9.4	12	25	19	27	47	62	61	42	26	10	10
10	8.0	12	22	20	24	47	91	59	40	25	8.9	9.4
11	8.1	11	23	41	22	52	149	55	39	23	9.8	9.5
12	8.3	11	22	40	23	50	115	52	37	23	12	10
13	8.9	29	22	32	21	47	81	51	35	23	10	9.5
14	9.4	45	20	27	21	40	68	50	34	21	11	8.8
15	9.4	37	20	26	21	35	63	52	32	20	11	8.6
16	9.8	28	32	27	22	33	111	78	30	19	12	9.8
17	9.7	24	53	25	24	31	187	118	28	18	13	12
18	9.5	21	42	24	29	41	130	102	28	18	12	12
19	9.8	20	33	21	33	95	94	75	29	15	11	11
20	9.8	18	28	19	33	101	91	67	34	13	11	11
21	9.9	18	25	21	32	75	92	69	58	11	10	11
22	10	17	24	20	31	87	80	97	82	11	11	13
23	10	17	22	22	32	71	71	129	66	11	11	42
24	9.5	17	22	26	34	55	87	141	50	11	11	23
25	11	17	22	26	32	48	132	107	40	11	11	11
26	14	15	21	22	28	43	118	76	36	11	11	7.9
27	15	11	21	20	26	44	92	72	34	12	11	8.1
28	13	12	21	20	24	89	80	71	32	12	11	8.6
29	12	37	22	18	---	106	74	64	39	13	11	9.0
30	12	57	22	18	---	74	71	63	41	13	11	9.7
31	11	---	21	18	---	57	---	70	---	13	11	---
TOTAL	312.1	587	822	710	703	1589	2646	2343	1326	609	360.7	356.9
MEAN	10.1	19.6	26.5	22.9	25.1	51.3	88.2	75.6	44.2	19.6	11.6	11.9
MAX	15	57	53	41	34	106	187	141	82	37	18	42
MIN	8.0	11	14	18	17	23	48	50	28	11	8.9	7.9
CFSM	.44	.84	1.14	.99	1.08	2.21	3.80	3.26	1.91	.84	.50	.51
IN.	.50	.94	1.32	1.14	1.13	2.55	4.24	3.76	2.13	.98	.58	.57

CAL YR 1982 TOTAL 8845.7 MEAN 24.2 MAX 103 MIN 6.4 CFSM 1.04 IN. 14.18
WTR YR 1983 TOTAL 12364.7 MEAN 33.9 MAX 187 MIN 7.9 CFSM 1.46 IN. 19.83

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'21", Cumberland County, Hydrologic Unit 02040206, on right bank just downstream from bridge on Silver Lake Road, 0.6 mi south of Seeley, 2.6 mi east of Shiloh, 4.1 mi north of Bridgeton, and 22.5 mi upstream from mouth.

DRAINAGE AREA.--28.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 26.9 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Flow diverted above gage during summer months for irrigation.

AVERAGE DISCHARGE.--6 years, 38.3 ft³/s, 18.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s June 21, 1983, includes discharge from dam break at Seeley Lake 1.3 mi upstream, gage height, 8.50 ft, from rating curve extended above 600 ft³/s on basis of step-backwater computation of peak flow; minimum, 13 ft³/s Sept. 13, 1981, gage height, 2.71 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 10	1900	263	4.99	June 21	0130	*10000	8.50
Apr. 16	1700	411	5.38				

Minimum daily discharge, 16 ft³/s June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	18	31	21	21	26	39	44	37	44	24	24
2	21	18	29	20	22	37	38	45	32	43	25	23
3	21	18	25	19	32	28	91	45	29	40	25	23
4	21	19	24	19	26	25	72	66	36	50	25	23
5	21	23	24	20	22	23	49	53	30	50	38	23
6	21	20	37	26	22	23	44	44	26	41	32	22
7	21	19	26	23	33	39	43	41	33	37	26	22
8	21	18	21	21	28	47	48	40	29	35	24	68
9	21	20	21	20	25	49	54	40	25	34	25	54
10	21	19	20	26	22	47	165	39	23	31	24	24
11	21	19	20	49	23	39	164	38	22	29	26	24
12	21	20	23	31	24	45	70	38	22	29	39	24
13	21	52	21	24	22	35	53	38	21	27	29	24
14	21	36	21	21	21	30	49	38	20	26	27	24
15	21	27	22	28	22	30	49	44	19	26	26	24
16	21	23	63	26	24	29	291	93	18	27	25	24
17	21	22	56	22	26	29	142	125	17	26	25	25
18	21	21	30	21	27	56	63	62	16	25	26	25
19	21	21	24	19	27	100	58	43	18	25	25	24
20	21	21	24	20	25	61	66	53	289	26	24	24
21	26	20	22	20	24	100	60	55	2150	26	24	31
22	22	21	21	20	23	114	50	68	228	28	24	79
23	21	21	21	32	28	53	46	165	76	26	24	35
24	21	21	20	32	27	40	82	84	92	27	24	26
25	29	20	20	27	25	37	126	50	67	25	24	24
26	33	20	20	24	23	35	78	41	49	25	24	24
27	24	20	20	22	21	45	63	81	46	25	24	24
28	20	21	20	22	21	111	49	70	46	25	25	24
29	18	72	23	21	---	66	46	44	57	25	29	24
30	18	47	23	21	---	44	45	45	47	25	29	26
31	18	---	21	22	---	40	---	45	---	25	24	---
TOTAL	670	737	793	739	686	1483	2293	1777	3620	953	815	865
MEAN	21.6	24.6	25.6	23.8	24.5	47.8	76.4	57.3	121	30.7	26.3	28.8
MAX	33	72	63	49	33	114	291	165	2150	50	39	79
MIN	18	18	20	19	21	23	38	38	16	25	24	22
CFSM	.77	.88	.91	.85	.87	1.71	2.73	2.05	4.32	1.10	.94	1.03
IN.	.89	.98	1.05	.98	.91	1.97	3.05	2.36	4.81	1.27	1.08	1.15

CAL YR 1982 TOTAL 10703 MEAN 29.3 MAX 258 MIN 16 CFSM 1.05 IN. 14.22
WTR YR 1983 TOTAL 15431 MEAN 42.3 MAX 2150 MIN 16 CFSM 1.51 IN. 20.50

01412800 COHANSEY RIVER AT SEELEY, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
07...	1230	21	237	6.7	18.0	9.4	99	1.8	130	140
JAN										
25...	1130	26	211	--	6.0	12.1	--	.9	94	20
MAR										
14...	1115	30	201	6.9	8.0	12.3	105	.7	2	4
MAY										
18...	0930	64	151	--	13.5	8.8	84	1.6	>24000	800
JUL										
19...	1100	26	237	6.7	22.0	5.2	60	1.8	900	35000
AUG										
09...	1230	25	210	6.4	22.0	8.0	--	3.0	490	920

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
07...	60	12	7.2	15	4.2	19	21	29	<.10
JAN									
25...	58	12	6.9	11	4.0	9.0	23	27	<.10
MAR									
14...	51	10	6.2	9.9	3.8	11	24	24	.10
MAY									
18...	53	11	6.3	8.2	3.6	15	23	19	.10
JUL									
19...	63	12	8.1	15	4.5	14	22	28	.10
AUG									
09...	59	12	7.1	12	4.1	16	21	27	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
07...	7.8	125	E.010	4.10	.050	.06	4.2	.15	1.7
JAN									
25...	8.5	128	.020	5.40	.120	1.0	6.4	.12	1.8
MAR									
14...	6.3	107	.020	4.20	<.050	.92	5.1	.12	3.6
MAY									
18...	4.7	113	.030	2.90	.140	.58	3.5	.58	6.3
JUL									
19...	8.5	130	.040	5.20	<.050	.31	5.5	.28	4.1
AUG									
09...	8.9	123	.020	4.70	.070	E.24	--	.21	3.9

01413015 COHANSEY RIVER AT BRIDGETON, NJ

LOCATION.--Lat 39°25'54", long 75°14'11", Cumberland County, Hydrologic Unit 02040206, at bridge on Washington Street in Bridgeton, 1.3 mi downstream from Sunset Lake, and 18.6 mi upstream from mouth.

DRAINAGE AREA.--47.3 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to May 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 04...	1115	2440	7.5	19.5	9.8	108	21	--	--	200
JAN 20...	1030	195	--	.0	14.8	99	1.8	33	79	51
MAR 14...	0930	518	6.5	8.0	10.3	88	2.1	130	90	66
MAY 18...	1130	159	6.5	17.0	8.1	83	4.2	2200	<200	51

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 04...	11	43	370	19	26	<.5	97	700	.10
JAN 20...	9.7	6.6	12	3.9	13	--	21	23	<.10
MAR 14...	9.9	10	52	5.0	19	--	31	99	<.10
MAY 18...	10	6.3	11	3.6	22	<.5	22	18	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 04...	3.9	1480	.020	.600	.070	1.1	1.7	.61	3.3
JAN 20...	8.2	108	.020	4.20	.120	.13	4.3	.12	6.3
MAR 14...	7.0	239	.020	3.20	.300	1.4	4.6	1.00	4.8
MAY 18...	5.9	104	.010	2.40	.480	1.4	3.8	.52	7.8

01413015 COHANSEY RIVER AT BRIDGETON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
04...	1115	10	1	<10	200	2	20	9
MAY								
18...	1130	50	2	<10	40	1	<10	7

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
04...	1200	9	120	.2	5	<1	40	<1
MAY								
18...	3000	53	110	<.1	9	<1	50	--

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, PA, Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, NY and Matamoras, PA, 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORD.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft³/s Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/s Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s by velocity-area studies; stage on Mar. 8, 1904, was 25.5 ft, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72,700 ft³/s Apr. 16, gage height, 13.05 ft; minimum, 697 ft³/s Oct. 15, gage height, 1.65 ft; minimum daily, 870 ft³/s Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	1580	2470	2990	3080	3250	5770	18600	6570	4380	1640	1870
2	1850	1580	2290	2600	2850	4020	5330	18400	6060	3650	1570	1340
3	1740	1540	1980	2580	8980	5670	5770	19000	5310	3300	1460	1290
4	1690	1420	1740	2490	22000	5730	7530	18000	5410	3030	1580	1600
5	1680	1690	1610	2410	12600	4910	7330	16700	6590	2520	1580	1490
6	1740	1730	1500	2210	8150	4600	6370	14200	5670	2600	1860	1540
7	1640	1460	1580	2170	6820	5400	6050	10800	7810	2440	1750	2470
8	1680	1400	1400	1780	6340	7250	6160	8760	8210	2330	1810	2140
9	1730	1360	1300	1500	5600	7730	8360	9890	6920	2080	1670	1690
10	1780	1260	1310	1530	5070	7730	9900	9970	6220	1440	1620	1610
11	1630	1530	1500	2270	4630	9110	17700	8610	5500	1240	1770	1600
12	1580	1540	870	3430	3850	8840	14600	7470	5100	1780	2550	1660
13	1480	1730	1160	3300	3250	7170	11800	6560	4830	1980	2530	2020
14	1450	1940	1070	2540	3580	6750	9830	5570	3880	1990	1720	1020
15	1080	2210	1260	1990	4040	6780	8610	4850	3200	1910	1240	1290
16	1560	1880	1920	1590	3880	6340	44000	6380	3210	1900	1150	1660
17	1810	1580	4630	1870	3820	5870	47900	6330	3080	1850	1150	1560
18	1580	1450	4420	2310	3690	5560	25500	5420	3090	1570	1500	1530
19	1660	1420	3130	2270	3530	6520	19200	4800	2770	2310	1570	1330
20	1710	1540	2760	1960	3010	8070	16500	4540	2860	2120	2180	2500
21	1630	1590	2690	2290	2870	9570	15400	4890	2910	2030	1630	2110
22	1460	1560	2450	2250	3130	14500	15200	4190	2960	2250	1490	2730
23	1680	1730	2210	1810	3910	12400	15300	4790	2650	1910	2070	2290
24	1640	2090	1980	4630	4510	9990	17400	4990	2430	1440	1910	1320
25	1580	1980	1960	7490	4360	8540	34800	4540	2170	1870	2210	1160
26	1660	1660	2230	5630	3450	6750	38000	4180	1500	1950	1690	1340
27	1640	1540	5910	4420	2490	5840	32000	4670	1550	1430	1740	1260
28	1690	1420	5170	3910	2690	7730	24500	4930	2210	1220	1690	1070
29	1690	1510	5100	3130	---	8540	21200	4270	7410	1710	1630	1330
30	1690	1740	4510	2730	---	7290	19400	4920	5960	1610	1860	1540
31	1590	---	3640	2940	---	6340	---	6890	---	1340	1770	---
TOTAL	50850	48660	77750	87020	146180	224790	517410	258110	134040	65180	53590	49360
MEAN	1640	1622	2508	2807	5221	7251	17250	8326	4468	2103	1729	1645
MAX	1850	2210	5910	7490	22000	14500	47900	19000	8210	4380	2550	2730
MIN	1080	1260	870	1500	2490	3250	5330	4180	1500	1220	1150	1020

CAL YR 1982	TOTAL	1356380	MEAN 3716	MAX	28300	MIN 870
WTR YR 1983	TOTAL	1712940	MEAN 4693	MAX	47900	MIN 870

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59(e), 1964-65(c), 1966(a), 1967-68(c), 1969-76(d).
MINOR ELEMENTS DATA: 1970(a), 1972-73(a), 1974-76(c).
PESTICIDE DATA: 1974(a).
ORGANIC DATA: OC--1974(b), 1975(d).
NUTRIENT DATA: 1968(a), 1969-76(d).
BIOLOGICAL DATA:
Bacteria--1973-76(d).
Phytoplankton--1974(b), 1975-76(c).
Periphyton--1976(a).
SEDIMENT DATA: 1959(c), 1976(c).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--No temperature record Dec. 16 to Jan. 19, Mar. 4 to Apr. 18, and Apr. 24 to June 10, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983), 30.0°C July 13, 1981; minimum (water years 1958-60, 1973, 1975-83), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C July 17, 18, 31, Aug. 1; minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.5	16.5	18.0	12.0	10.5	11.5	4.0	3.5	3.5	---	---	---
2	18.5	17.0	17.5	13.5	11.5	12.5	5.5	4.0	4.5	---	---	---
3	17.5	16.0	17.0	14.0	13.0	13.5	6.0	5.0	5.5	---	---	---
4	18.0	16.5	17.5	15.5	14.5	15.0	8.0	6.0	7.0	---	---	---
5	17.5	16.0	17.0	15.0	11.5	13.0	9.0	8.0	8.5	---	---	---
6	18.0	16.5	17.5	11.0	9.5	10.0	10.5	9.0	10.0	---	---	---
7	18.0	16.5	17.0	9.0	8.0	8.5	10.0	8.0	9.0	---	---	---
8	18.0	17.0	17.5	8.5	7.0	8.0	8.0	6.5	7.0	---	---	---
9	18.0	17.5	18.0	8.5	7.5	8.0	6.5	2.5	4.5	---	---	---
10	17.5	16.0	16.5	7.5	6.5	7.0	2.5	1.0	1.5	---	---	---
11	15.5	14.5	15.0	6.5	6.0	6.0	1.0	.5	.5	---	---	---
12	15.5	14.5	15.0	8.0	6.0	6.5	1.0	.0	.5	---	---	---
13	14.5	14.0	14.0	8.0	7.0	7.5	.0	.0	.0	---	---	---
14	14.5	13.5	14.0	6.5	6.0	6.0	.0	.0	.0	---	---	---
15	14.0	13.0	13.5	6.0	5.0	5.5	.0	.0	.0	---	---	---
16	13.0	11.0	12.5	4.5	4.0	4.5	---	---	---	---	---	---
17	11.0	10.0	10.5	4.0	3.5	3.5	---	---	---	---	---	---
18	10.0	8.5	9.5	4.0	3.0	3.5	---	---	---	---	---	---
19	10.5	9.0	10.0	4.0	3.5	3.5	---	---	---	---	---	---
20	12.0	10.0	11.0	4.5	4.0	4.0	---	---	---	.0	.0	.0
21	12.5	11.5	12.0	6.0	4.5	5.0	---	---	---	.0	.0	.0
22	11.5	10.5	11.0	6.5	6.0	6.0	---	---	---	.0	.0	.0
23	10.5	9.5	10.0	8.0	6.5	7.5	---	---	---	.0	.0	.0
24	9.5	8.0	8.5	8.5	7.0	8.0	---	---	---	.0	.0	.0
25	8.5	7.0	7.5	6.5	5.5	6.0	---	---	---	.0	.0	.0
26	8.5	7.0	8.0	5.5	4.5	4.5	---	---	---	.0	.0	.0
27	9.0	7.5	8.5	4.5	3.0	4.0	---	---	---	.0	.0	.0
28	9.5	8.0	9.0	3.0	1.5	2.0	---	---	---	.0	.0	.0
29	10.0	8.5	9.0	2.5	2.0	2.0	---	---	---	.0	.0	.0
30	11.0	9.0	10.0	3.5	2.5	3.0	---	---	---	.0	.0	.0
31	11.0	10.5	10.5	---	---	---	---	---	---	.5	.0	.5
MONTH	18.5	7.0	13.0	15.5	1.5	7.0	10.5	.0	4.0	.5	.0	.0

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	.5	1.0	2.5	2.0	2.0	---	---	---			
2	1.0	1.0	1.0	4.0	2.5	3.0	---	---	---			
3	2.0	1.0	1.5	4.5	3.5	4.0	---	---	---			
4	1.5	.0	.0	4.5	3.5	4.0	---	---	---			
5	.0	.0	.0	---	---	---	---	---	---			
6	.0	.0	.0	---	---	---	---	---	---			
7	.0	.0	.0	---	---	---	---	---	---			
8	.0	.0	.0	---	---	---	---	---	---			
9	.0	.0	.0	---	---	---	---	---	---			
10	.0	.0	.0	---	---	---	---	---	---			
11	.0	.0	.0	---	---	---	---	---	---			
12	.0	.0	.0	---	---	---	---	---	---			
13	.0	.0	.0	---	---	---	---	---	---			
14	.0	.0	.0	---	---	---	---	---	---			
15	.0	.0	.0	---	---	---	---	---	---			
16	.5	.0	.5	---	---	---	---	---	---			
17	.5	.5	.5	---	---	---	---	---	---			
18	1.5	.5	1.0	---	---	---	---	---	---			
19	1.5	1.0	1.5	---	---	---	7.5	5.5	6.5			
20	1.5	.5	1.0	---	---	---	5.0	5.0	5.0			
21	2.0	1.0	1.5	---	---	---	6.0	5.0	5.5			
22	3.0	1.5	2.0	---	---	---	7.5	6.0	7.0			
23	2.5	2.0	2.0	---	---	---	9.0	7.5	8.0			
24	2.0	1.5	2.0	---	---	---	---	---	---			
25	2.0	1.5	2.0	---	---	---	---	---	---			
26	1.5	.5	1.0	---	---	---	---	---	---			
27	1.0	.5	.5	---	---	---	---	---	---			
28	2.0	.5	1.5	---	---	---	---	---	---			
29	---	---	---	---	---	---	---	---	---			
30	---	---	---	---	---	---	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	3.0	.0	.5	4.5	2.0	3.5	9.0	5.0	6.5			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	22.0	20.5	21.0	27.5	26.0	27.0	24.0	21.5	23.0
2	---	---	---	24.5	21.0	22.0	26.5	25.0	26.0	24.0	21.5	23.0
3	---	---	---	26.0	23.0	24.0	27.0	24.5	26.0	24.0	22.0	23.5
4	---	---	---	26.0	24.0	25.0	26.5	25.5	26.0	23.5	22.5	23.0
5	---	---	---	25.5	24.0	25.0	26.5	25.0	26.0	24.5	22.5	23.5
6	---	---	---	24.5	23.0	23.5	27.0	24.0	25.5	25.0	23.5	24.0
7	---	---	---	24.0	22.0	23.0	27.0	25.0	26.0	25.0	23.5	24.0
8	---	---	---	24.5	21.5	23.0	27.0	25.0	26.0	23.5	21.5	23.0
9	---	---	---	24.0	22.5	23.0	26.5	24.5	26.0	23.5	21.0	22.5
10	---	---	---	23.5	21.0	22.5	26.0	24.0	25.0	24.0	21.5	23.0
11	20.0	18.0	19.0	24.0	21.5	23.0	25.0	23.0	24.0	24.5	22.5	24.0
12	20.5	19.5	20.0	25.0	22.5	24.0	23.0	20.0	21.5	24.5	22.5	23.5
13	21.5	20.0	21.0	25.5	23.5	24.5	21.5	20.0	20.5	22.5	20.5	21.5
14	23.5	21.0	22.0	25.5	22.5	24.5	22.0	19.0	20.5	21.0	19.5	20.0
15	25.5	22.5	23.5	26.0	23.5	25.0	22.5	20.0	21.5	19.5	18.0	19.0
16	26.0	24.0	25.0	26.5	24.0	25.5	24.0	21.5	23.0	19.0	17.5	18.0
17	24.5	23.0	23.5	27.5	24.5	26.0	24.5	22.0	23.5	19.0	18.0	18.5
18	24.5	23.0	24.0	27.5	25.5	27.0	26.0	23.5	24.5	19.5	17.0	18.5
19	24.5	23.0	23.5	27.0	24.5	25.5	27.0	25.0	26.0	20.5	18.0	19.5
20	23.0	22.5	23.0	24.5	23.5	24.0	27.0	25.0	26.0	22.0	19.5	21.0
21	23.0	22.0	22.5	25.5	23.0	24.0	25.0	23.0	24.5	21.5	20.0	20.5
22	23.5	21.0	22.5	24.0	22.5	23.5	24.0	22.5	23.5	20.0	19.0	19.5
23	24.5	22.0	23.0	24.5	21.5	23.5	25.0	22.5	24.0	18.5	17.0	18.0
24	24.5	22.5	23.5	24.0	22.5	23.5	24.5	22.0	23.5	17.5	16.0	16.5
25	24.0	23.0	23.5	25.0	23.5	24.0	24.0	21.5	23.0	16.5	15.0	16.0
26	23.0	20.5	22.0	25.5	23.5	24.5	24.5	22.0	23.0	16.0	15.0	15.5
27	26.5	22.0	23.5	25.5	22.5	24.0	25.5	23.0	24.5	17.0	15.0	16.5
28	25.0	21.0	23.5	26.0	23.5	25.0	25.5	24.0	25.0	18.5	16.5	17.5
29	22.0	20.5	21.0	26.0	25.0	25.5	25.0	23.5	24.5	17.5	16.0	16.5
30	22.5	20.0	21.0	26.0	24.0	25.0	25.5	23.5	24.5	16.5	16.0	16.0
31	---	---	---	27.5	24.5	26.0	24.0	23.0	23.5	---	---	---
MONTH	26.5	18.0	22.5	27.5	20.5	24.0	27.5	19.0	24.5	25.0	15.0	20.5

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, NY, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cluddebackville, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--307 mi^2.

PERIOD OF RECORD.--August to October 1903, July 1937 to current year. Gage heights and discharge measurements, August 1909 to April 1914. Twice-daily figures of discharge, January 1911 to December 1912, which do not represent daily mean discharges because of diurnal fluctuation. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORD.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

REMARKS.--Records fair except those for winter periods, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 91.8 mi^2 of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft^3/s on basis of slope-area measurment of peak flow; practically no flow several times in July 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,910 ft^3/s Apr. 16, gage height, 8.71 ft; minimum discharge, 82 ft^3/s Nov. 1, gage height, 3.25 ft; minimum gage height, 2.99 ft Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	103	197	190	190	327	737	1350	974	266	125	119
2	140	149	176	170	190	534	646	1210	845	240	143	109
3	137	134	162	150	1680	769	942	1090	715	224	134	103
4	137	125	155	140	1520	737	1180	1030	1170	220	122	103
5	131	373	159	140	900	698	961	879	1120	240	122	101
6	128	279	152	130	560	683	836	721	900	216	125	101
7	122	208	146	130	450	888	729	609	1260	176	125	101
8	131	179	137	120	380	1020	737	561	979	159	137	106
9	146	162	143	120	350	1210	897	602	786	155	131	94
10	140	159	106	120	320	1140	1260	534	660	149	128	89
11	117	149	137	322	290	1240	1930	483	574	140	137	91
12	125	143	140	352	270	1190	1370	452	502	134	284	91
13	131	224	96	266	250	1030	1160	423	441	134	275	96
14	155	244	100	220	230	933	988	389	400	140	197	96
15	137	201	140	210	210	836	897	384	373	140	165	94
16	149	169	249	200	200	753	5070	819	384	162	149	91
17	143	169	362	190	190	675	4310	714	452	149	165	94
18	137	162	220	190	180	646	2730	547	389	140	140	96
19	137	155	190	180	180	2220	2140	464	362	137	143	98
20	140	149	170	180	170	1870	1920	458	435	131	131	91
21	137	143	160	180	170	1790	1720	452	357	131	119	103
22	131	143	160	170	170	2200	1630	423	298	190	117	317
23	125	149	150	170	368	1520	1720	698	261	146	114	149
24	125	155	150	700	384	1230	2000	646	236	193	109	114
25	131	140	150	500	360	1030	3540	536	232	224	106	103
26	137	143	266	362	330	871	3680	539	220	172	106	103
27	137	143	284	302	310	778	2710	865	208	146	106	98
28	134	134	249	270	290	1250	2220	892	288	131	122	94
29	134	193	253	230	---	1280	2020	827	561	128	117	89
30	131	224	240	210	---	1030	1870	1070	327	125	119	96
31	125	---	216	200	---	845	---	1110	---	125	119	---
TOTAL	4182	5203	5615	7014	11092	33233	54550	21777	16709	5163	4332	3230
MEAN	135	173	181	226	396	1072	1818	702	557	167	140	108
MAX	155	373	362	700	1680	2220	5070	1350	1260	266	284	317
MIN	117	103	96	120	170	327	646	384	208	125	106	89

CAL YR 1982 TOTAL 129475 MEAN 355 MAX 2520 MIN 94
WTR YR 1983 TOTAL 172100 MEAN 472 MAX 5070 MIN 89

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 0.4 mi upstream from toll bridge on U.S. Route 206 at Montague, 0.8 mi downstream from Sawkill Creek, and at mile 246.3.

DRAINAGE AREA.--3,480 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Water-discharge records excellent except those for winter months, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--44 years, 5,829 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft^3/s Aug. 19, 1955, gage height, 35.15 ft, from rating curve extended above 90,000 ft^3/s on basis of flood-routing study; minimum, 382 ft^3/s Aug. 24, 1954, gage height, 3.83 ft, minimum daily, 412 ft^3/s Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81,100 ft^3/s Apr. 16, gage height, 19.80 ft; minimum discharge, 848 ft^3/s Sept. 28, gage height, 4.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010	1760	2680	3410	3750	3780	7150	20600	7990	4860	1810	1940
2	2000	1750	2580	2980	3530	4630	6560	19900	7410	4010	1890	1500
3	1910	1790	2230	2790	10100	6900	7310	20600	6510	3620	1570	1400
4	1900	1600	2000	2710	23500	7010	9460	19400	7020	3400	1790	1670
5	1810	2270	1830	2460	14400	6260	9020	17800	8390	2830	1780	1640
6	1940	2190	1740	2530	10000	5740	7880	15000	7190	2870	2040	1600
7	1830	1790	1780	2510	8140	6470	7210	11700	9360	2770	1990	2570
8	1810	1690	1590	2220	7640	8680	7410	9730	9830	2540	2010	2300
9	1900	1590	1480	1760	6880	9430	9700	10600	8310	2420	1860	1860
10	1940	1470	1490	1660	6000	9400	11200	10700	7400	1720	1840	1700
11	1860	1650	1710	2580	5530	10700	20600	9400	6550	1420	1890	1690
12	1810	1760	1060	4050	5180	10600	16800	8300	5990	1920	3020	1730
13	1710	2000	1270	3760	3900	8910	13300	7360	5610	2140	2980	2200
14	1730	2270	1310	3100	4100	8200	11300	6390	4560	2180	2210	1230
15	1450	2520	1420	2700	4800	8240	10100	5540	3930	2120	1590	1260
16	1520	2190	2270	2100	4600	7670	45300	7340	3610	2130	1370	1670
17	2010	1810	4850	2200	4540	7080	56500	7580	3790	2010	1450	1690
18	1870	1690	5210	2800	4310	6660	30100	6400	3670	1760	1650	1630
19	1870	1630	3450	2500	4250	9240	22500	5620	3300	2470	1720	1430
20	1920	1740	3140	2400	3520	10700	19400	5210	3330	2410	2450	2300
21	1880	1790	3100	2600	3380	11400	17900	5710	3340	2240	1790	2240
22	1670	1770	2820	2600	3500	16900	17400	4880	3430	2510	1640	2910
23	1780	1860	2550	2200	4420	14400	17600	5760	3080	2290	2180	2570
24	1830	2280	2340	4900	5140	11700	19600	6200	2820	1630	2090	1580
25	1810	2220	2330	8200	5040	10200	37000	5520	2600	2090	2340	1210
26	1860	1860	2570	7280	4440	8390	41800	5030	1880	2340	1830	1420
27	1840	1740	6100	5840	3020	7240	35100	5820	1720	1660	1900	1430
28	1890	1610	5820	5140	3100	9690	27500	6530	2530	1480	1810	1090
29	1900	1760	5730	4350	---	10500	23900	5530	7290	1950	1770	1450
30	1900	1990	5100	3530	---	9180	21900	6290	6610	1850	2020	1610
31	1760	---	4160	3450	---	7910	---	8400	---	1470	1990	---
TOTAL	56920	56040	87710	103310	170710	273810	588500	290840	159050	73110	60270	52520
MEAN	1836	1868	2829	3333	6097	8833	19620	9382	5302	2358	1944	1751
MAX	2010	2520	6100	8200	23500	16900	56500	20600	9830	4860	3020	2910
MIN	1450	1470	1060	1660	3020	3780	6560	4880	1720	1420	1370	1090

CAL YR 1982 TOTAL 1556120 MEAN 4263 MAX 29200 MIN 1060
WTR YR 1983 TOTAL 1972790 MEAN 5405 MAX 56500 MIN 1060

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'09", Sussex County, Hydrologic Unit 02040104, on right bank 1.0 mi upstream from Flatbrookville, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--64.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1923 to current year.

REVISED RECORDS.--WSP 1432: 1924(M), 1928(M), 1929, 1930(M), 1932, 1933(M), 1936, 1938(M), 1939-40, 1949(M), 1952-53(M). WDR-NJ-80-2: 1970(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Aug. 19, 1929. Datum of gage is 347.73 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1926, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow occasionally regulated by ponds above station.

AVERAGE DISCHARGE.--60 years, 109 ft^3/s, 23.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft^3/s Aug. 19, 1955, gage height, 12.58 ft, from high-water mark in gage house, from rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 3.6 ft^3/s Sept. 25, 26, 1964, Sept. 11, 1966, but may have been lower during period of ice effect, Feb. 2-11, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 3	2000	984	4.39	Apr. 10	1800	1470	5.23
Mar. 22	0245	742	3.96	Apr. 16	0830	*5110	9.52
Mar. 28	1415	753	3.98				

Minimum discharge, 8.1 ft^3/s Sept. 21, gage height, 1.77 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	17	59	61	114	130	236	244	196	55	22	14
2	22	17	53	59	122	255	208	222	162	49	28	13
3	21	18	50	56	661	380	350	209	138	44	24	13
4	18	20	48	50	626	295	441	193	251	42	20	13
5	18	110	53	52	341	247	298	177	237	41	24	12
6	16	90	50	70	251	212	244	158	183	42	29	11
7	17	70	46	68	216	223	240	144	328	38	21	11
8	15	58	43	57	206	236	322	136	230	33	19	10
9	21	50	41	51	172	300	329	152	169	33	17	9.4
10	21	46	36	50	143	292	983	132	143	30	15	9.4
11	19	42	38	159	130	391	799	119	126	28	23	9.2
12	17	40	38	150	118	329	476	110	110	27	63	9.6
13	18	104	32	104	169	294	371	103	98	26	89	11
14	21	113	37	88	152	269	312	97	88	26	43	12
15	24	83	35	87	129	237	600	96	79	25	30	11
16	21	69	112	87	121	204	3600	126	72	27	25	10
17	19	62	206	77	123	182	1320	219	71	26	22	10
18	17	58	116	79	128	174	707	137	70	24	21	9.9
19	16	57	92	78	133	489	567	111	66	23	21	9.6
20	16	53	84	80	121	478	516	108	68	24	19	9.1
21	17	50	78	82	115	416	464	104	71	24	16	12
22	18	48	71	79	125	615	468	98	61	115	15	46
23	16	46	66	119	151	394	439	244	54	49	15	25
24	14	44	70	256	176	316	416	206	50	38	15	17
25	17	41	88	228	169	268	540	151	47	46	13	14
26	21	39	84	177	150	227	528	132	43	36	13	13
27	26	38	75	143	129	218	399	266	41	29	13	12
28	22	37	71	123	128	627	349	262	56	26	13	11
29	20	62	72	109	---	432	303	196	158	23	13	11
30	19	74	67	105	---	314	274	249	77	23	13	11
31	18	---	62	113	---	270	---	246	---	22	13	---
TOTAL	590	1656	2073	3097	5319	9714	17099	5147	3543	1094	727	389.2
MEAN	19.0	55.2	66.9	99.9	190	313	570	166	118	35.3	23.5	13.0
MAX	26	113	206	256	661	627	3600	266	328	115	89	46
MIN	14	17	32	50	114	130	208	96	41	22	13	9.1
CFSM	.30	.86	1.05	1.56	2.97	4.89	8.91	2.59	1.84	.55	.37	.20
IN.	.34	.96	1.20	1.80	3.09	5.65	9.94	2.99	2.06	.64	.42	.23

CAL YR 1982 TOTAL 33659 MEAN 92.2 MAX 823 MIN 10 CFSM 1.44 IN. 19.56
WTR YR 1983 TOTAL 50448.2 MEAN 138 MAX 3600 MIN 9.1 CFSM 2.16 IN. 29.32

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Highway 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi^2 approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--19 years, 6,398 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s June 30, 1973, gage height, 23.82 ft; minimum daily, 580 ft^3/s July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 88,100 ft^3/s Apr. 17, gage height, 20.97 ft; minimum daily discharge, 1,250 ft^3/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2310	1950	2620	4350	4760	4930	9400	24100	9540	6320	1720	2110
2	2290	1910	3260	3680	4830	5580	8540	22100	8800	4980	2130	1890
3	2230	2010	2860	3290	10300	8360	8880	23600	7890	4390	1750	1570
4	2160	1920	2540	3120	29900	9270	11700	22200	8010	4050	1830	1570
5	2100	2910	2310	3010	22300	8750	11700	21000	9650	3590	1880	1830
6	2110	3070	2140	2910	13900	7830	10400	17800	9140	3400	1960	1690
7	2160	2650	2070	3020	10900	7780	9330	14300	10100	3360	2100	2370
8	1990	2210	2010	2890	10200	10100	9080	11300	12000	3120	1990	2630
9	2110	2040	1780	2440	9090	11500	11200	10700	10400	2960	2040	2100
10	2060	1880	1690	2190	8160	11700	13600	12000	9080	2380	1880	1850
11	2100	1740	1900	2890	7070	13100	26700	10600	8330	1990	1910	1810
12	1970	2140	2000	4450	6490	13600	24300	9410	7580	2040	2980	1830
13	1880	2370	1500	4990	6000	11800	18600	8240	7050	2400	3440	2310
14	1840	2860	1500	4200	6000	10900	15200	7630	6420	2490	3170	1810
15	1730	3050	1600	3630	6700	10200	13100	6660	5130	2470	2090	1250
16	1260	3040	1640	2990	6430	9660	41900	6960	4690	2460	1650	1490
17	1950	2520	2550	3000	5920	8760	74100	9040	4780	2120	1570	1970
18	2120	2230	4840	3000	5740	8100	43000	7850	4570	2120	1530	1720
19	1930	2060	5260	2800	5720	10700	31000	6890	4460	2460	1870	1700
20	2030	2010	4170	2700	4860	13800	25400	6410	4260	2870	2330	1950
21	2090	2140	3680	2800	4670	14200	23000	6650	4370	2520	2090	2600
22	1890	2160	3430	2900	4530	21700	21600	6110	4370	2890	1870	3040
23	1770	2130	3200	3400	5290	20200	20900	6290	4040	2700	1900	3200
24	2000	2440	2980	4770	6200	15800	21700	7790	3660	2130	2410	2230
25	2010	2700	2830	10200	6480	13300	37300	7190	3400	1990	2410	1460
26	2080	2370	3010	9950	6100	11300	48900	6420	2830	2570	2120	1500
27	2070	2150	3930	7930	4670	9270	43400	6520	2380	2060	1990	1670
28	2100	1990	6340	6690	4180	12300	34600	7990	2840	1780	1950	1460
29	2090	2010	6030	6150	---	13700	28700	7080	5470	1890	1960	1400
30	2100	2200	5860	4770	---	12300	25700	7180	8590	2050	2230	1630
31	1990	---	5120	4320	---	10700	---	8700	---	1710	2070	---
TOTAL	62520	68860	96650	129430	227390	351190	722930	336710	193830	86260	64820	57640
MEAN	2017	2295	3118	4175	8121	11330	24100	10860	6461	2783	2091	1921
MAX	2310	3070	6340	10200	29900	21700	74100	24100	12000	6320	3440	3200
MIN	1260	1740	1500	2190	4180	4930	8540	6110	2380	1710	1530	1250

CAL YR 1982 TOTAL 1919720 MEAN 5260 MAX 32400 MIN 1260
WTR YR 1983 TOTAL 2398230 MEAN 6570 MAX 74100 MIN 1250

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 18...	1245	97	7.5	11.5	11.8	E1.9	140	2	32
FEB 28...	1045	93	7.8	2.0	13.6	E1.5	80	4	30
MAY 11...	1100	79	7.7	10.5	11.8	2.4	<20	<2	23
JUN 16...	1330	79	[illegible].4	24.0	8.4	E2.2	<20	170	30
JUL 26...	1345	96	8.2	24.0	7.3	E1.4	130	70	30
AUG 30...	1330	95	7.9	26.0	8.6	E1.8	<20	14	31

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 18...	9.5	2.1	4.9	.60	22	--	10	6.8	<.10
FEB 28...	8.9	1.8	4.5	.70	16	--	14	8.0	<.10
MAY 11...	7.0	1.4	3.3	.80	13	--	13	5.1	<.10
JUN 16...	9.1	1.8	4.2	.90	16	<.5	11	6.2	<.10
JUL 26...	9.1	1.7	4.7	.90	19	--	12	7.0	.10
AUG 30...	9.2	1.9	4.5	.90	20	--	12	6.7	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 18...	1.1	52	.010	.300	.110	E.38	--	.09	2.2
FEB 28...	3.6	58	<.010	.300	.150	.30	.60	<.06	2.1
MAY 11...	2.8	44	<.010	.400	.170	.37	.77	.12	2.8
JUN 16...	1.9	61	<.010	.300	.310	--	--	.21	3.7
JUL 26...	1.7	40	.010	.280	<.050	.47	.75	.21	3.5
AUG 30...	1.8	60	.020	.500	.050	.28	.78	.15	2.8

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
16...	1330	10	1	<10	30	1	<10	68

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
16...	130	2	40	<.1	1	<1	20	5

01443440 PAULINS KILL AT BALESVILLE, NJ

LOCATION.--Lat 41°06'20", long 74°45'19", Sussex County, Hydrologic Unit 02040105, at bridge on unnamed road at Balesville, 2.2 mi downstream from Dry Brook, and 3.4 mi north of Newton.

DRAINAGE AREA.--67.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 18...	1045	32	566	8.0	6.5	11.7	E3.4	2800	110	220
FEB 24...	1245	201	383	8.0	3.0	13.4	E2.1	50	79	130
MAY 09...	1315	149	417	8.5	12.5	--	E1.9	1700	130	160
JUN 02...	1045	157	354	8.1	14.5	12.4	<.7	170	34	130
JUL 26...	1045	42	540	8.2	20.0	8.3	E2.0	790	1600	210
AUG 30...	1045	--	562	8.2	22.5	7.4	E1.9	490	170	220

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 18...	51	22	28	1.9	165	<.5	33	48	.10
FEB 24...	33	11	19	1.8	93	--	25	34	.10
MAY 09...	42	14	23	1.5	124	--	24	36	.10
JUN 02...	34	11	17	1.1	105	--	22	30	<.10
JUL 26...	51	19	26	2.1	163	--	31	47	.30
AUG 30...	55	21	28	2.4	177	--	35	50	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 18...	7.4	311	.040	1.10	.080	.32	1.4	.45	3.5
FEB 24...	6.3	209	<.010	.700	.350	.90	1.6	.21	5.2
MAY 09...	4.9	230	.040	1.00	.130	.83	1.8	.21	5.2
JUN 02...	5.1	219	.050	.900	.100	.68	1.6	--	5.9
JUL 26...	6.2	305	.070	1.40	.120	.64	2.0	.67	4.3
AUG 30...	6.7	361	.050	1.30	.060	.50	1.8	.71	4.1

01443440 PAULINS KILL AT BALESVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
18...	1045	1200	3.2	6.6	10	1	<1	<10	40	<1	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
18...	10	2	10	8	0	180	1900	2	40	40	1000

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOMCMATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
18...	<.1	<.01	2	<10	<1	<1	30	50	6	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
18...	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
18...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'44", long 74°57'15", Warren County, Hydrologic Unit 02040105, on right bank 1,200 ft upstream from bridge on State Highway 94 in Blairstown, 1,400 ft upstream from Blairs Creek, and 10 mi upstream from mouth. Water-quality samples collected at bridge 1,200 ft downstream from gage at high flows.

DRAINAGE AREA.--126 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.- 1921 to September 1976, October 1977 to current year.

REVISED RECORDS.--WSP 971: 1942. WSP 1382: 1952-53(M).

GAGE.--Water-stage recorder and concrete control (Aug. 1, 1931, to Aug. 3, 1941, concrete control at site 280 ft, downstream). Datum of gage is 335.86 ft National Geodetic Vertical Datum of 1929. Prior to May 24, 1922, nonrecording gage and May 24, 1922 to July 31, 1931, water-stage recorder, at site of former highway bridge 1,300 ft downstream at different datum. Aug. 1, 1931 to July 28, 1939, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.-Water-discharge records good except those for winter periods, which are fair. Diurnal fluctuation caused by powerplant above station and flow regulated slightly by Swartswood Lake.

AVERAGE DISCHARGE.--61 years, (water years 1922-76, 1978-83) 194 ft^3/s, 20.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,750 ft^3/s Aug. 19, 1955, gage height, 11.12 ft, from high-water mark in gage house; minimum, about 2.8 ft^3/s Nov. 1, 1922; minimum daily, 5 ft^3/s Aug. 13, 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 3	1930	1090	3.56	Apr. 16	2015	*3200	7.25
Mar. 22	0345	1240	4.02	Apr. 25	1500	1060	3.47

Minimum discharge, 19 ft^3/s Sept. 11, gage height, 1.45 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	49	157	153	260	292	418	418	308	117	40	35
2	71	47	139	145	264	427	378	383	269	103	41	30
3	64	46	78	140	764	482	522	365	239	95	39	29
4	60	58	79	130	817	423	595	351	371	85	37	28
5	57	339	106	122	556	390	480	327	367	86	37	27
6	54	262	204	133	447	357	423	297	299	86	46	26
7	53	198	213	130	408	378	395	270	495	77	44	25
8	51	162	197	126	386	404	452	259	408	69	37	23
9	73	146	169	117	349	493	646	269	321	66	36	23
10	73	133	143	117	310	534	1070	246	272	61	35	22
11	58	126	139	198	260	667	1690	229	241	58	81	21
12	52	122	124	211	241	627	1260	217	218	58	184	140
13	53	256	116	198	304	575	981	208	198	57	158	144
14	61	346	109	191	283	511	729	197	183	54	108	127
15	60	278	108	195	258	456	605	195	167	53	81	105
16	56	243	179	196	248	407	2250	246	154	55	67	80
17	51	233	200	188	246	377	2550	352	166	53	57	37
18	48	222	178	197	256	369	1810	275	155	48	55	24
19	46	204	182	190	265	836	1420	230	145	61	55	28
20	45	189	221	184	249	851	1270	226	149	58	48	25
21	46	180	216	178	244	874	1160	226	149	52	44	30
22	47	172	204	168	261	1150	1030	213	134	72	38	61
23	50	163	199	207	302	904	810	366	117	65	37	56
24	47	149	200	259	333	684	782	363	108	60	34	48
25	58	138	201	260	338	561	1010	290	99	69	32	39
26	77	133	199	287	320	477	917	260	89	60	31	24
27	71	128	187	293	288	444	694	386	84	52	30	32
28	61	125	185	270	286	797	579	358	120	47	33	31
29	56	174	184	248	---	672	506	318	206	43	38	25
30	52	163	174	238	---	523	456	381	154	43	38	28
31	50	---	160	256	---	458	---	359	---	45	33	---
TOTAL	1777	5184	5150	5925	9543	17400	27888	9080	6385	2008	1674	1373
MEAN	57.3	173	166	191	341	561	930	293	213	64.8	54.0	45.8
MAX	77	346	221	293	817	1150	2550	418	495	117	184	144
MIN	45	46	78	117	241	292	378	195	84	43	30	21
CFSM	.45	1.37	1.32	1.52	2.71	4.45	7.38	2.33	1.69	.51	.43	.36
IN.	.52	1.53	1.52	1.75	2.82	5.14	8.23	2.68	1.89	.59	.49	.41

CAL YR 1982 TOTAL 74266 MEAN 203 MAX 1170 MIN 45 CFSM 1.61 IN. 21.93
WTR YR 1983 TOTAL 93387 MEAN 256 MAX 2550 MIN 21 CFSM 2.03 IN. 27.57

01443500 PAULINS KILL AT BLAIRSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB									
24...	1145	335	380	8.2	3.0	13.8	E2.0	90	13
APR									
27...	1115	671	250	7.7	8.0	12.4	E1.5	70	17
JUN									
02...	1215	267	289	8.3	16.0	11.5	E1.0	130	11
JUL									
26...	1230	60	483	8.4	23.0	7.8	E1.9	110	350
AUG									
30...	1215	39	468	8.3	24.0	8.3	E1.9	80	240

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
24...	130	33	12	17	1.4	102	23	29	<.10
APR									
27...	100	25	9.1	12	1.1	83	20	20	<.10
JUN									
02...	110	29	9.8	12	1.0	95	18	21	<.10
JUL									
26...	170	39	18	19	1.4	145	22	33	.20
AUG									
30...	180	42	19	20	1.8	148	27	35	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
24...	6.0	216	<.010	.800	.250	.70	1.5	.15	2.9
APR									
27...	4.1	183	.030	.500	.050	.63	1.1	.24	4.2
JUN									
02...	4.8	177	.010	.500	<.050	.55	1.1	.24	5.6
JUL									
26...	2.1	279	.010	.300	.090	.56	.86	.28	4.1
AUG									
30...	2.1	270	.020	.300	.050	.49	.79	.31	4.8

01443900 YARDS CREEK NEAR BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 75°02'25", Warren County, Hydrologic Unit 02040105, on left bank 100 ft upstream from bridge on Hainesburg-Mount Vernon Road, 1.4 mi downstream of Yards Creek Reservoir, 2.2 mi northeast of Hainesburg, 2.4 mi upstream from mouth, and 4.2 mi west of Blairstown.

DRAINAGE AREA.--5.34 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR NJ-77-2: 1976. WDR NJ-79-2: 1977(m). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 608 ft, from topographic map.

REMARKS.--Water-discharge records fair. Complete regulation by the Jersey Central Power and Light Co., at Yards Creek Reservoir 1.4 mi above station.

AVERAGE DISCHARGE.--17 years, 11.1 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 583 ft^3/s, Feb. 24, 1977, gage height, 3.92 ft; no flow Sept. 12, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft^3/s Apr. 16, gage height, 3.11 ft; minimum, 0.53 ft^3/s Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	1.5	6.8	21	14	21	24	17	19	2.1	.86	2.1
2	2.7	1.6	7.0	17	16	23	24	16	19	2.0	.96	2.1
3	2.5	1.5	7.4	17	28	20	30	16	19	1.8	.87	2.1
4	2.4	6.0	8.3	18	31	15	22	17	24	1.6	1.1	2.1
5	2.2	7.6	7.2	19	29	15	22	17	19	1.4	1.8	1.7
6	2.1	3.0	6.0	19	23	14	21	13	19	1.6	1.6	1.6
7	2.0	2.3	2.9	18	22	14	22	9.8	31	1.6	1.1	2.0
8	1.9	1.9	2.4	12	21	16	34	9.7	40	1.6	.95	1.9
9	2.2	2.0	2.0	11	23	16	28	8.8	42	1.6	1.3	1.8
10	2.8	2.3	6.8	11	30	20	59	8.8	33	1.4	.97	1.4
11	2.4	2.2	4.9	13	50	19	90	7.7	21	1.3	6.5	1.4
12	2.1	2.3	3.5	12	45	21	105	2.4	19	1.3	3.8	1.3
13	2.1	7.8	3.3	13	29	18	88	2.3	18	1.1	2.3	1.7
14	2.3	3.8	3.4	13	27	17	58	2.2	16	.80	1.5	1.8
15	2.5	3.4	3.3	13	18	20	54	2.2	15	.90	1.1	1.8
16	2.3	3.2	9.1	11	18	21	101	4.8	14	.89	1.1	1.9
17	2.0	3.0	5.2	12	20	22	119	4.4	9.2	.83	1.1	1.9
18	1.9	3.0	4.2	15	22	23	109	7.2	9.8	.61	1.1	1.7
19	1.9	2.9	4.0	16	22	35	111	6.1	9.4	3.3	1.1	1.4
20	1.8	2.8	3.8	19	21	26	113	3.2	9.3	1.4	1.0	1.5
21	1.8	2.8	3.7	28	19	38	99	2.5	9.0	1.3	.92	3.6
22	1.8	2.6	3.6	34	20	57	57	3.4	8.9	1.3	.74	2.8
23	1.8	2.5	8.0	54	22	55	24	6.2	9.0	1.0	.86	1.9
24	1.7	2.6	6.7	17	22	55	26	5.1	5.7	1.2	1.2	2.0
25	1.9	2.7	4.7	16	21	58	30	9.8	2.7	.98	1.2	1.8
26	2.7	2.4	3.5	15	21	25	47	11	2.7	1.0	1.1	1.6
27	1.9	2.3	3.4	15	21	25	58	15	2.3	1.0	1.9	1.7
28	1.8	2.3	3.5	18	20	26	48	19	5.1	1.0	2.0	1.7
29	1.7	5.5	8.0	23	---	23	18	20	3.0	.98	1.9	1.7
30	1.7	5.7	20	14	---	33	18	18	2.2	1.5	1.9	2.2
31	1.7	---	25	13	---	47	---	19	---	1.3	2.1	---
TOTAL	65.5	95.5	191.6	547	675	838	1659	304.6	456.3	41.69	47.93	56.2
MEAN	2.11	3.18	6.18	17.6	24.1	27.0	55.3	9.83	15.2	1.34	1.55	1.87
MAX	2.9	7.8	25	54	50	58	119	20	42	3.3	6.5	3.6
MIN	1.7	1.5	2.0	11	14	14	18	2.2	2.2	.61	.74	1.3

CAL YR 1982 TOTAL 4019.4 MEAN 11.0 MAX 180 MIN 1.0
WTR YR 1983 TOTAL 4978.32 MEAN 13.6 MAX 119 MIN .61

01444100 PAULINS KILL AT MOUTH AT COLUMBIA, NJ

LOCATION.--Lat 40°55'14", long 75°05'18", Warren County, Hydrologic Unit 02040206, at bridge on U.S. Route 46 in Columbia, 2.3 mi southwest of Polkville, and 3.2 mi southeast of Knowlton.

DRAINAGE AREA.--177 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to June 1983 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB 24...	1030	333	8.1	3.0	13.4	E2.0	260	17	120
APR 27...	1200	237	7.6	8.5	11.4	E1.3	490	14	98
JUN 02...	1330	272	8.2	16.0	11.4	E1.9	330	11	120

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 24...	30	11	14	1.1	92	--	22	24	<.10
APR 27...	25	8.7	9.9	.90	77	--	20	17	<.10
JUN 02...	28	11	12	.90	88	<.5	20	18	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 24...	5.7	192	<.010	.800	.320	.48	1.3	.09	2.2
APR 27...	4.1	165	.020	.600	.050	.47	1.1	.12	3.1
JUN 02...	5.2	177	.010	.600	<.050	E.51	--	.24	4.9

01444100 PAULINS KILL AT MOUTH AT COLUMBIA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
02...	1330	110	<1	<10	50	<1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
02...	260	<1	50	.5	3	<1	40	<1

01445500 PEQUEST RIVER AT PEQUEST, NJ

LOCATION.--Lat 40°49'50", long 74°58'43", Warren County, Hydrologic Unit 02040105, on right bank at Pequest, 100 ft upstream from CONRAIL (formerly Lehigh and Hudson River Railway) bridge, and 300 ft downstream from Furnace Brook.

DRAINAGE AREA.--106 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for October 1921, published in WSP 1302.

REVISED RECORDS.--WSP 1902: 1940(M), 1945, 1955(M), 1957, 1959(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 29, 1929. Datum of gage is 398.78 ft National Geodetic Vertical Datum of 1929. Prior to June 22, 1926, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--62 years, 154 ft³/s, 19.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,130 ft³/s Jan. 25, 1979, gage height, 5.97 ft, from floodmark; minimum, 12 ft³/s Aug. 17-22, Dec. 10, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 19	1200	744	3.35	Apr. 10	2045	1090	4.11
Mar. 21	2230	819	3.52	Apr. 16	1415	*1500	4.90
Mar. 28	0600	673	3.18	Apr. 25	1115	973	3.86

Minimum discharge, 27 ft³/s Sept. 20, 21, gage height, 1.22 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	44	133	99	176	228	349	439	253	131	55	42
2	53	46	130	97	188	397	319	412	220	114	65	39
3	50	44	116	93	542	380	403	389	197	104	54	37
4	49	55	115	89	434	317	450	372	255	95	51	36
5	47	217	110	86	353	281	404	341	247	90	50	36
6	46	150	106	111	305	264	349	313	212	87	49	34
7	46	106	100	110	278	290	321	289	328	81	48	33
8	44	86	94	101	265	302	347	275	257	78	46	33
9	43	79	91	93	252	345	480	283	206	73	44	32
10	43	77	84	90	218	426	737	261	181	70	42	32
11	42	72	82	240	183	445	973	245	166	67	81	30
12	42	70	84	180	91	433	825	236	153	66	235	29
13	46	254	78	135	192	394	674	222	146	62	131	33
14	50	231	67	114	228	346	561	202	137	59	95	33
15	49	170	88	124	214	314	491	195	127	59	77	32
16	47	131	192	122	204	291	1170	205	123	62	70	31
17	44	116	226	113	195	274	1460	225	120	56	63	31
18	43	105	152	96	200	277	1460	244	126	54	57	29
19	42	98	127	79	211	654	1390	219	125	89	55	28
20	41	93	123	104	202	576	1230	218	130	159	52	28
21	42	91	119	100	200	634	1050	211	127	85	49	34
22	41	94	115	95	216	712	815	204	120	81	45	77
23	39	92	111	173	247	595	685	261	112	76	44	48
24	38	88	117	303	276	503	699	232	104	71	42	38
25	42	82	123	262	268	446	921	200	97	76	41	35
26	66	80	126	233	246	402	790	206	89	76	40	33
27	58	78	119	203	217	383	652	349	87	67	38	33
28	52	75	117	181	218	608	583	290	113	61	38	32
29	48	169	118	165	---	525	524	259	263	57	60	32
30	45	167	111	158	---	440	476	317	187	55	44	34
31	44	---	103	177	---	384	---	302	---	62	42	---
TOTAL	1441	3260	3577	4326	6819	12866	21588	8416	5008	2423	1903	1054
MEAN	46.5	109	115	140	244	415	720	271	167	78.2	61.4	35.1
MAX	66	254	226	303	542	712	1460	439	328	159	235	77
MIN	38	44	67	79	91	228	319	195	87	54	38	28
CFSM	.44	1.03	1.08	1.32	2.30	3.92	6.79	2.56	1.58	.74	.58	.33
IN.	.51	1.14	1.26	1.52	2.39	4.52	7.58	2.95	1.76	.85	.67	.37

CAL YR 1982 TOTAL 56641 MEAN 155 MAX 844 MIN 38 CFSM 1.46 IN. 19.88
WTR YR 1983 TOTAL 72681 MEAN 199 MAX 1460 MIN 28 CFSM 1.88 IN. 25.51

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at mile 197.7.

DRAINAGE AREA.--4,535 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--61 years, 7,890 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft^3/s Aug. 19, 1955, gage height, 30.21 ft, from high-water mark in gage house, from rating curve extended above 170,000 ft^3/s on basis of flood-routing study; minimum, 609 ft^3/s Sept. 28, 29, 1943, gage height, 2.11 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft^3/s, from rating curve extended above 170,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101,000 ft^3/s Apr. 17, gage height, 18.04 ft; minimum, 1,200 ft^3/s Sept. 29, gage height, 2.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2530	2200	3310	5290	6310	6560	12400	26500	11800	7420	1860	2170
2	2550	2160	3990	4640	6520	7550	11200	24200	10900	5840	2280	2250
3	2500	2190	3590	4200	15900	10500	12800	25600	9750	5100	2210	1760
4	2400	2290	3250	4140	33200	11600	15400	24100	11100	4650	1940	1650
5	2340	4110	3000	3680	27100	11000	15200	22800	12600	4240	2140	1930
6	2280	4190	2910	3820	17400	9640	13500	20000	11600	3800	2210	1870
7	2370	3500	2800	3860	14200	9880	12200	16800	13700	3720	2460	1960
8	2250	2850	2770	3710	12800	12000	12300	13600	15100	3430	2300	2810
9	2350	2630	2560	3180	11200	13900	14800	12800	13000	3270	2320	2440
10	2430	2460	2380	2870	9350	14800	19600	14400	11200	2920	2110	2080
11	2420	2270	2410	4440	7680	16400	33100	12900	10100	2330	2350	1930
12	2260	2470	2500	5680	5520	17100	30400	11600	8950	2070	3630	1970
13	2240	3500	1790	6240	6870	15200	23300	10200	8240	2560	4220	2270
14	2240	4030	1770	5270	6800	13200	19100	9360	7590	2710	3800	2450
15	2200	3920	1900	4620	7100	13100	16900	8050	6220	2700	2710	1540
16	1840	3840	3170	3910	7580	12200	45300	8360	5530	2690	2070	1500
17	1960	3360	5310	3490	7730	11300	91000	11200	5730	2590	1790	1960
18	2410	2950	7810	3130	7400	10600	53400	9650	5490	2520	1810	1910
19	2200	2750	6110	3180	7420	16500	37300	8340	5250	2470	2330	1840
20	2240	2660	5060	3030	6380	19200	30700	7790	5190	3380	2470	1660
21	2310	2750	4840	3190	5980	19700	27400	8060	5470	2980	2330	2700
22	2230	2780	4590	3570	5960	26900	25600	7440	5130	3100	2190	3430
23	2020	2750	4240	4670	6970	24800	24400	8690	4760	3150	2200	3560
24	2180	2890	4010	7390	8100	19700	25400	9760	4280	2740	1990	2800
25	2260	3210	3860	10300	8490	16700	40300	8890	3890	2320	3150	1920
26	2450	3020	4070	11600	8020	14600	56200	7920	3400	2830	3990	1520
27	2440	2700	4970	9730	6840	12400	47200	8640	2800	2650	4100	1720
28	2370	2560	8250	8170	6190	17100	38400	10000	3140	2110	2280	1700
29	2370	2990	7340	7340	---	18000	31700	8930	6180	1910	3500	1360
30	2350	3170	7250	6180	---	16100	28300	9570	10300	2310	2370	1710
31	2330	---	6310	5910	---	14000	---	11100	---	2250	2220	---
TOTAL	71320	89150	128120	160430	281010	452330	864800	397250	238390	98760	79330	62370
MEAN	2301	2972	4133	5175	10040	14590	28830	12810	7946	3186	2559	2079
MAX	2550	4190	8250	11600	33200	26900	91000	26500	15100	7420	4220	3560
MIN	1840	2160	1770	2870	5520	6560	11200	7440	2800	1910	1790	1360

CAL YR 1982 TOTAL 2294710 MEAN 6287 MAX 37000 MIN 1770
WTR YR 1983 TOTAL 2923260 MEAN 8009 MAX 91000 MIN 1360

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft upstream from Lehigh River, and 0.2 mi downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB 28...	1245	163	8.1	2.0	13.1	E1.6	490	2	56
MAY 11...	1300	112	7.9	10.5	10.9	E1.8	<20	2	40
JUN 16...	1100	134	7.5	25.0	8.6	2.6	<20	330	51
JUL 27...	1030	146	8.2	24.5	--	E1.4	170	49	55
AUG 22...	1230	165	8.5	26.0	--	E2.0	50	70	58

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 28...	15	4.4	6.7	1.0	34	--	21	6.5	<.10
MAY 11...	11	3.0	4.2	.90	24	--	17	6.3	<.10
JUN 16...	14	3.8	6.5	1.0	32	<.5	17	7.8	<.10
JUL 27...	15	4.2	7.3	1.1	37	--	26	9.1	.10
AUG 22...	16	4.4	7.6	1.1	37	--	19	10	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 28...	4.1	94	<.010	.800	<.050	.33	1.1	.06	2.3
MAY 11...	2.9	73	<.010	.600	.070	.32	.92	.12	3.0
JUN 16...	2.0	76	<.010	.600	--	--	--	.18	4.0
JUL 27...	2.1	78	.020	.600	.090	.43	1.0	.15	3.5
AUG 22...	2.2	100	.030	.700	<.050	.44	1.1	.21	2.7

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN								
16...	1100	10	1	<10	10	1	20	22

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
16...	150	1	30	<.1	7	<1	20	<1

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, PA, Hydrologic Unit 02040106, on left bank 110 ft upstream from New Street Bridge at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi^2.

PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5, WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--76 years (water years 1902-04, 1909-83), 2,335 ft^3/s, 24.79 in/yr, adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft^3/s May 23, 1942, gage height, about 25.9 ft, from floodmark, present site and datum, from rating curve extended above 48,000 ft^3/s; minimum, 125 ft^3/s June 28, 1965, gage height, 0.94 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 28, 1902, reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,800 ft^3/s, Apr. 16, gage height, 15.53 ft; minimum, 397 ft^3/s Sept. 17, gage height, 1.12 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	698	909	1530	1460	2000	2230	4110	5200	3110	2250	816	762
2	672	678	1520	1450	1980	2800	3500	4840	2820	2200	789	687
3	679	577	1410	1430	9390	3320	4750	4710	2390	2030	771	568
4	682	725	1330	1300	8840	3420	4620	4880	4050	1920	771	541
5	666	1820	1290	1200	7500	3200	4800	4470	4280	1920	807	541
6	572	1600	1260	1300	6210	2900	4260	3900	4050	1500	867	541
7	583	1540	1260	1330	5740	3070	3840	3380	5650	1300	825	515
8	587	1490	1220	1240	5150	3070	4300	3280	5130	1250	780	524
9	610	1240	1210	1160	4600	3240	5510	3460	4430	1130	735	524
10	656	1030	1110	1180	3380	3460	7070	3200	3920	1060	706	524
11	611	970	1080	1760	2600	4470	8790	3010	3150	1030	1010	498
12	578	940	1060	1920	3300	4490	8360	2760	2900	1000	1870	533
13	694	1450	1010	1780	3580	4130	7420	2600	2620	980	1140	613
14	1570	1300	909	1530	2780	3400	5840	2220	2050	950	990	559
15	1460	1140	960	1530	2410	3160	5650	2120	1840	930	919	480
16	1450	1110	1700	1540	2230	2950	36100	2390	1680	898	846	447
17	1570	1130	2920	1430	2170	2740	17900	3320	1790	846	716	447
18	1220	1060	2460	1340	2100	2650	16500	2700	2020	816	706	622
19	1190	1000	2120	1180	2100	5260	15400	2500	2080	867	706	515
20	1160	960	2070	1450	1980	6070	14000	2460	3110	930	697	463
21	1160	980	1900	1410	1950	9440	9250	2760	3160	856	668	550
22	1160	1010	1740	1410	2000	9410	6210	2540	2570	867	659	807
23	1200	1050	1600	2050	2330	8330	5510	3840	2150	919	640	668
24	1190	1050	1620	3940	2680	6240	5630	4280	1810	1190	604	687
25	1260	1030	1620	4010	2760	4840	10500	3280	1700	1220	595	568
26	1450	1050	1630	3380	2540	3780	13000	3220	1730	930	577	550
27	1390	1010	1620	2840	2330	3720	15000	3200	1570	798	559	622
28	1300	960	1810	2550	2280	6260	10700	2920	1440	744	559	604
29	1240	1570	1810	2220	---	5950	6850	3030	3720	735	604	577
30	950	1620	1740	2100	---	5540	5770	3480	2310	825	604	586
31	919	---	1540	2120	---	4670	---	3260	---	816	595	---
TOTAL	31127	33999	48059	56540	98910	138210	271140	103210	85230	35707	24131	17123
MEAN	1004	1133	1550	1824	3533	4458	9038	3329	2841	1152	778	571
MAX	1570	1820	2920	4010	9390	9440	36100	5200	5650	2250	1870	807
MIN	572	577	909	1160	1950	2230	3500	2120	1440	735	559	447

CAL YR 1982 TOTAL 747900 MEAN 2049 MAX 8610 MIN 572
WTR YR 1983 TOTAL 943386 MEAN 2585 MAX 36100 MIN 447

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ

LOCATION.--Lat 40°42'57", long 75°04'20", Warren County, Hydrologic Unit 02040105, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek.

DRAINAGE AREA.--33.3 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1962 and January 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
FEB									
24...	1020	162	6.6	2.5	15.0	2.3	40	11	48
APR									
05...	1030	175	8.2	9.5	13.1	<1.3	50	79	58
JUN									
07...	1040	188	7.2	16.0	9.8	E2.9	3500	1600	80
JUL									
20...	1045	197	7.5	20.5	8.3	3.8	16000	>2400	80
AUG									
22...	1100	375	8.6	20.0	12.0	E2.3	5400	>2400	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
24...	12	4.5	8.0	2.1	29	--	19	14	<.10
APR									
05...	14	5.5	7.3	1.5	36	--	20	11	<.10
JUN									
07...	19	7.8	7.3	1.6	54	<.5	20	11	.10
JUL									
20...	19	7.8	9.0	2.4	54	--	21	13	.10
AUG									
22...	26	12	13	2.4	90	--	19	17	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
24...	11	103	<.010	1.10	.250	.84	1.9	.55	3.4
APR									
05...	12	99	.020	1.40	.140	.51	1.9	.27	2.8
JUN									
07...	14	134	.040	1.70	.090	.87	2.6	1.00	2.8
JUL									
20...	13	139	.060	1.60	.090	.98	2.6	.71	10
AUG									
22...	12	187	.040	2.30	<.050	.47	2.8	.83	4.9

01455200 POHATCONG CREEK AT NEW VILLAGE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN								
07...	1000	<10	1	<10	20	1	20	6

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
07...	490	<1	49	<.1	4	<1	50	<1

01455300 POHATCONG CREEK AT CARPENTERSVILLE, NJ

LOCATION.--Lat 40°37'30", long 75°11'10", Warren County, Hydrologic Unit 02040105, at bridge on Carpentersville-Riegelsville Road in Carpentersville, and 2,000 ft upstream from mouth.

DRAINAGE AREA.--57.0 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-62, 1976 to June 1983 (discontinued).

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
JAN 24...	1045	206	7.5	.5	12.4	3.8	3500	540	52
APR 05...	1200	254	8.2	10.0	12.2	E1.5	130	17	99
JUN 07...	1230	280	7.7	17.0	10.2	E2.7	490	350	140

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
JAN 24...	12	5.3	12	2.0	35	17	18	<.10	9.3
APR 05...	23	10	6.8	1.7	76	24	10	<.10	11
JUN 07...	31	14	6.3	1.8	99	25	10	<.10	13

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	109	.010	1.10	.190	1.1	2.3	1.1	9.2
APR 05...	137	.020	1.90	.050	.33	2.2	.21	2.5
JUN 07...	170	.020	2.40	<.050	2.0	4.4	.36	3.4

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ

LOCATION.--Lat 40°55'00", long 74°39'55", Morris County, Hydrologic Unit 02040105, just upstream of bridge on Warren County Route 43 and 300 ft downstream from Lake Hopatcong dam in Landing.

DRAINAGE AREA.--25.3 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL (MPN)	HARD- NESS (MG/L AS CACO3)
OCT 27...	1030	242	7.2	7.0	11.8	3.3	80	130	53
JAN 18...	1030	253	7.9	1.5	14.0	E2.0	<20	6	57
MAR 17...	1030	255	8.3	5.5	13.6	2.3	<20	70	54
MAY 18...	1100	237	7.9	14.0	10.6	E2.3	<20	<2	53
JUL 12...	1045	221	8.5	24.0	8.3	2.6	<20	20	70
AUG 02...	1030	204	7.9	26.0	7.7	E2.3	20	1600	50
SEP 22...	1400	216	7.3	20.5	8.6	E1.9	50	79	50

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 27...	14	4.4	20	.80	28	<.5	18	40	<.10
JAN 18...	15	4.8	22	1.1	27	--	17	41	<.10
MAR 17...	14	4.7	22	1.1	27	--	20	43	<.10
MAY 18...	14	4.3	20	.90	26	--	18	39	<.10
JUL 12...	18	6.1	17	2.0	29	--	17	38	.10
AUG 02...	14	3.6	19	.80	28	--	15	36	.10
SEP 22...	13	4.2	19	.40	26	<.5	15	37	<.10

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 27...	4.3	132	.010	E.050	<.050	E.55	--	.06	3.2
JAN 18...	1.4	148	.000	.100	.050	.41	.51	.06	3.3
MAR 17...	0.7	130	<.050	.200	<.050	.38	.58	.06	3.5
MAY 18...	0.1	130	<.010	.200	.080	.45	.65	.09	4.1
JUL 12...	4.7	139	.010	.100	.070	.48	.58	.25	4.5
AUG 02...	3.3	149	.010	.100	<.050	.51	.61	.21	3.1
SEP 22...	2.9	125	<.010	<.100	.060	.43	--	.18	3.6

01455500 MUSCONETCONG RIVER AT OUTLET OF LAKE HOPATCONG, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
27...	1030	450	.6	5.1	<10	1	<1	<10	30	<1	<1
SEP											
22...	1400	--	--	--	<10	2	--	<10	30	--	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
27...	10	1	<10	3	6	130	2400	7	10	10	300
SEP											
22...	--	--	--	2	--	210	--	8	--	50	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOMCMATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
27...	<.1	<.01	2	<10	<1	<1	40	20	<1	230	<1.0
SEP											
22...	<.1	--	<1	--	<1	--	70	--	41	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
27...	<.1	<1.0	<.1	<.1	<.1	<.1	.1	<.1	<.1	<.1	<.1
SEP											
22...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
SEP											
22...	--	--	--	--	--	--	--	--	--	--	--

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ

LOCATION.--Lat 40°55'10", long 74°44'07", Sussex County, Hydrologic Unit 02040105, at bridge in Lockwood, at boundary between Sussex County and Morris County, 0.2 mi southeast of Cage Hill, 0.4 mi south of Jefferson Lake, and 0.9 mi downstream from Lubbers Run.

DRAINAGE AREA.--60.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 27...	1220	35	310	7.7	9.0	11.2	E2.1	<20	240	78
JAN 18...	1145	74	270	7.6	.0	14.6	E2.1	<20	2	78
MAR 17...	1215	123	235	8.0	6.0	12.2	E2.3	<20	8	65
MAY 18...	1215	123	240	7.9	13.5	10.5	E1.5	170	17	73
JUL 12...	1215	21	356	8.7	22.0	8.5	2.9	70	49	120
AUG 02...	1200	31	327	7.9	23.0	7.8	E3.6	130	540	110
SEP 22...	1245	61	365	8.0	18.0	8.5	3.3	1100	920	92

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 27...	19	7.4	21	1.4	56	--	19	42	<.10
JAN 18...	19	7.3	17	1.1	50	--	16	32	<.10
MAR 17...	16	6.1	15	.80	41	--	18	30	<.10
MAY 18...	18	6.7	16	.80	48	--	17	30	<.10
JUL 12...	29	11	22	2.1	80	--	17	45	.20
AUG 02...	28	10	21	2.0	80	--	16	42	.20
SEP 22...	23	8.5	18	1.6	63	<.5	19	34	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 27...	6.0	202	.090	.400	.400	.90	1.3	.49	3.1
JAN 18...	6.0	140	.020	.200	.300	.78	.98	.28	3.5
MAR 17...	5.3	134	.010	.200	.200	.54	.74	.18	3.4
MAY 18...	4.4	136	.020	.300	.240	.60	.90	.18	4.6
JUL 12...	11	205	.380	1.20	.560	1.1	2.3	.61	4.4
AUG 02...	11	239	.330	.900	.490	1.6	2.5	.37	4.6
SEP 22...	6.3	181	.070	.400	.280	1.1	1.5	--	4.6

01455801 MUSCONETCONG RIVER AT LOCKWOOD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT 27...	1220	400	.2	2.4	--	--	<1	--	--	--	<1
SEP 22...	1245	--	--	--	20	3	--	<10	40	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 27...	--	1	<10	--	0	--	1300	--	10	--	330
SEP 22...	20	--	--	5	--	1100	--	18	--	110	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOMCMATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 27...	--	<.01	--	<10	--	<1	--	20	--	<1	<1.0
SEP 22...	<.1	--	<1	--	<1	--	100	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 27...	<.1	<1.0	<.1	<.1	.1	<.1	<.1	<.1	<.1	<.1	<.1
SEP 22...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIl (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 27...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
SEP 22...	--	--	--	--	--	--	--	--	--	--	--

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ

LOCATION.--Lat 40°48'48", long 74°50'32", Warren County, Hydrologic Unit 02040105, at bridge at Beattystown, 1.6 mi upstream of Hanes Brook, 2.1 mi northeast of Stephensburg, and 3.5 mi northeast of Scrappy Corner.

DRAINAGE AREA.--90.3 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 27...	1345	70	356	8.1	9.0	12.3	E1.5	80	23	120
JAN 18...	1300	100	317	7.9	.0	14.0	E2.2	20	5	100
MAR 17...	1315	215	265	8.3	7.0	13.0	E2.2	<20	2	87
MAY 18...	1330	237	283	8.6	14.0	12.6	E2.0	490	13	100
JUL 12...	1330	63	373	8.8	22.5	11.2	E1.9	170	33	140
AUG 02...	1330	66	328	8.5	24.0	9.6	E2.0	110	220	130
SEP 22...	1030	121	395	8.2	17.5	9.0	3.1	790	>2400	130

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 27...	27	12	19	1.7	90	<.5	20	35	.10
JAN 18...	24	10	18	1.3	72	--	18	32	<.10
MAR 17...	21	8.4	15	1.0	62	--	19	28	<.10
MAY 18...	24	10	14	1.0	78	--	18	24	<.10
JUL 12...	32	15	18	1.7	114	--	19	34	.20
AUG 02...	29	13	16	1.8	105	--	19	31	.10
SEP 22...	30	13	17	1.9	100	--	18	32	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 27...	7.1	207	.060	.700	.100	E.80	--	.86	3.6
JAN 18...	6.9	166	.020	.700	.250	.69	1.4	.49	3.3
MAR 17...	6.5	142	.010	.450	.150	.62	1.1	.33	3.2
MAY 18...	6.9	160	.020	.700	.120	.55	1.3	.33	3.6
JUL 12...	9.4	220	.060	1.10	.110	.70	1.8	.80	3.8
AUG 02...	8.8	237	.050	1.30	.180	.56	1.9	.89	3.9
SEP 22...	6.6	204	.030	.800	.090	.77	1.6	.71	4.2

01456200 MUSCONETCONG RIVER AT BEATTYSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
27...	1345	--	--	--	<10	1	--	<10	40	<1	--
SEP											
22...	1030	970	2.4	5.0	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
27...	10	--	--	19	--	200	--	6	--	20	--
SEP											
22...	--	3	<10	--	0	--	2300	--	<10	--	260

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
27...	<.1	--	2	--	<1	--	50	--	<1	--	--
SEP											
22...	--	.02	--	<10	--	<1	--	20	--	<1	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	1.0	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01457000 MUSCONETCONG RIVER NEAR BLOOMSBURY, NJ

LOCATION.--Lat 40°40'20", long 75°03'40", Warren County, Hydrologic Unit 02040105, on right bank just downstream from highway bridge, 1.5 mi upstream from Bloomsbury, and 9.5 mi upstream from mouth.

DRAINAGE AREA.--141 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1903 to March 1907, July 1921 to current year.

REVISED RECORDS.--WSP 1051: 1944-45. WSP 1382: 1904-06, 1922, 1923-29(M), 1931(M), 1933-34(M), 1936(M), 1940, 1942(M), 1944-45(M), 1951-52(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Sept. 29, 1932. Datum of gage is 274.83 ft National Geodetic Vertical Datum of 1929. July 1903 to Mar. 31, 1907, nonrecording gage at bridge 15 ft upstream at different datum. July 26 to Sept. 12, 1921, nonrecording gage at bridge at present datum.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, Dec. 6 to Jan. 10 and Apr. 8 to 17, which are fair. Flow regulated by Lake Hopatcong (see Delaware River Basin, reservoirs in). Diurnal fluctuation caused by small powerplants above station.

AVERAGE DISCHARGE.--65 years (water years 1904-06, 1922-83), 234 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft³/s Jan. 25, 1979, gage height, 8.50 ft, from floodmark, from rating curve extended above 1,800 ft³/s on basis of slope-area measurement at gage height 6.95 ft; minimum, 8.1 ft³/s Aug. 2, 1955; minimum daily 27 ft³/s Sept. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 21	1745	1180	3.92	Apr. 16	Unknown	*2950	6.23
Mar. 28	0515	1090	3.75	Apr. 25	0845	1530	4.47

Minimum discharge, 68 ft³/s Sept. 16, 28, 29, gage height, 1.30 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	82	181	132	190	264	567	678	558	186	137	93
2	232	81	180	129	205	380	523	626	510	168	122	88
3	237	79	167	126	572	369	729	583	472	155	117	83
4	260	88	166	122	540	341	746	561	516	146	110	81
5	268	178	164	120	412	316	640	551	494	140	104	80
6	274	162	161	132	337	294	580	496	439	136	105	79
7	292	120	155	164	318	310	544	450	498	132	98	77
8	290	107	140	148	305	326	635	401	544	129	93	74
9	290	103	128	132	274	358	966	390	427	126	92	73
10	282	97	119	125	245	448	1290	379	333	124	89	71
11	269	102	115	328	220	471	1140	371	311	121	140	71
12	268	105	122	266	497	535	1030	361	296	119	321	77
13	265	239	116	212	299	488	920	344	284	116	239	82
14	261	245	120	179	314	428	780	332	288	108	182	73
15	209	186	128	175	278	375	650	302	286	105	153	71
16	213	165	200	177	232	338	1130	320	276	108	133	70
17	241	169	305	170	233	311	2590	392	262	104	122	70
18	239	184	240	167	242	342	1880	343	243	101	114	73
19	202	184	190	157	248	869	1530	342	262	106	109	77
20	114	183	170	179	234	894	1390	380	254	181	103	76
21	90	183	165	181	230	930	1290	371	210	138	99	83
22	83	180	160	175	244	934	1170	357	173	126	93	146
23	81	168	153	227	274	829	1030	446	157	117	90	118
24	81	135	158	304	293	732	1070	393	156	115	87	95
25	87	118	180	294	286	652	1360	344	159	118	85	84
26	138	115	165	275	275	594	1140	367	154	118	82	79
27	120	111	152	250	258	589	1010	547	150	109	81	78
28	96	111	149	233	254	911	910	433	184	104	83	75
29	88	218	149	204	---	784	819	423	307	101	110	71
30	83	206	147	183	---	680	747	566	220	106	91	77
31	82	---	137	192	---	613	---	607	---	128	99	---
TOTAL	5973	4404	4982	5858	8309	16705	30806	13456	9423	3891	3683	2445
MEAN	193	147	161	189	297	539	1027	434	314	126	119	81.5
MAX	292	245	305	328	572	934	2590	678	558	186	321	146
MIN	81	79	115	120	190	264	523	302	150	101	81	70

CAL YR 1982 TOTAL 87915 MEAN 241 MAX 1630 MIN 74
WTR YR 1983 TOTAL 109935 MEAN 301 MAX 2590 MIN 70

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'20", Warren County, Hydrologic Unit 02040105, at bridge on State Highway 13 in Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--156 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
26...	1030	104	339	7.8	8.0	12.5	2.8	3500	920	120
JAN										
24...	1215	195	379	8.0	.5	13.4	E2.1	3500	540	85
APR										
05...	1330	520	252	8.3	9.5	13.2	E1.9	20	46	86
JUN										
09...	1100	392	255	7.6	17.0	10.2	E2.3	1100	49	99
JUL										
20...	1145	--	340	8.2	20.5	9.5	E2.3	5400	>2400	150
AUG										
22...	1345	--	380	8.4	21.0	10.8	E1.9	230	540	150

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
26...	26	13	11	1.5	106	--	20	23	<.10
JAN									
24...	19	9.0	31	1.6	58	--	17	53	<.10
APR									
05...	20	8.8	13	1.1	61	--	20	23	<.10
JUN									
09...	23	10	14	1.5	70	<.5	19	24	<.10
JUL									
20...	34	17	11	1.8	123	--	22	20	.10
AUG									
22...	34	17	11	1.5	124	--	20	21	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
26...	6.9	194	.030	1.10	<.050	E.65	--	.21	2.7
JAN									
24...	7.7	190	.010	1.20	.100	.53	1.7	.40	2.7
APR									
05...	6.5	126	.010	1.10	<.050	.39	1.5	.15	2.5
JUN									
09...	7.6	157	.010	1.20	E.030	.79	2.0	2.50	4.1
JUL									
20...	8.1	231	.020	2.30	.090	.69	3.0	.40	1.9
AUG									
22...	7.3	229	.020	1.90	.110	.47	2.4	.28	2.2

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
26...	1030	720	.6	11	--	--	<1	--	--	--	<1
JUN											
09...	1100	--	--	--	50	1	--	<10	30	<1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
26...	--	3	<10	--	8	--	1700	--	20	--	150
JUN											
09...	10	--	--	110	--	930	--	16	--	70	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
26...	--	<.01	--	<10	--	<1	--	20	--	<1	<1.0
JUN											
09...	<.1	--	1	--	<1	--	20	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
26...	<.1	4.0	3.8	.7	<.1	<.1	1.3	<.1	<.1	<.1	<.1
JUN											
09...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
26...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
JUN											
09...	--	--	--	--	--	--	--	--	--	--	--

01460500 DELAWARE AND RARITAN CANAL AT KINGSTON, NJ

LOCATION.--Lat 40°22'24", long 74°37'08", Middlesex County, Hydrologic Unit 02040105, on right bank at canal lock at Kingston, and 250 ft upstream from new bridge on State Highway 27.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1947 to current year.

GAGE.--Two water-stage recorders and concrete control. Datum of gage is 40.00 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. The canal diverts water from the Delaware River at Raven Rock and discharges into Raritan River at New Brunswick. Some water wasted to the Millstone River 500 ft above station.

AVERAGE DISCHARGE.--36 years, 75.0 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft^3/s Apr. 6, 1957; no flow many days in many years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 108 ft^3/s Dec. 29; minimum daily, 3.8 ft^3/s July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	70	91	101	100	96	89	69	75	61	16	19
2	31	72	100	101	101	101	89	73	72	53	23	19
3	33	73	103	101	102	98	95	79	68	29	30	19
4	48	74	101	101	102	95	95	79	67	17	15	18
5	53	76	100	101	102	95	93	77	67	22	12	18
6	27	79	98	104	101	93	91	77	66	28	16	18
7	11	78	96	102	101	94	91	75	62	26	4.1	17
8	33	76	95	100	101	95	90	73	59	26	12	15
9	70	75	94	101	100	95	93	73	56	27	22	15
10	67	75	94	101	99	96	102	69	56	27	22	15
11	57	75	96	101	98	94	95	68	56	25	21	15
12	55	77	96	97	93	97	94	68	56	20	41	16
13	52	85	101	96	86	96	92	69	56	18	64	17
14	55	91	104	95	85	95	91	68	57	20	63	17
15	62	90	104	96	86	93	89	67	59	21	59	17
16	62	97	105	98	88	93	102	68	58	21	58	28
17	60	102	106	97	90	93	104	74	56	18	26	40
18	60	97	105	96	93	95	93	73	56	9.1	8.6	44
19	61	93	106	94	97	98	91	72	56	4.0	11	37
20	61	92	104	92	99	97	92	68	58	4.3	16	23
21	64	90	104	93	101	99	90	67	65	4.6	11	20
22	67	90	104	94	102	99	91	69	71	4.8	31	33
23	67	90	103	95	100	97	89	72	72	21	36	39
24	67	84	102	100	99	94	89	74	69	15	22	40
25	67	81	102	101	98	93	95	72	68	4.1	15	40
26	80	82	102	101	98	92	93	70	65	4.1	15	38
27	85	82	102	100	97	93	90	75	58	21	15	38
28	75	82	102	99	96	99	89	80	56	18	15	38
29	84	86	108	99	---	95	81	78	62	3.8	15	38
30	73	90	106	99	---	92	69	78	63	4.0	18	38
31	69	---	102	100	---	89	---	80	---	4.2	19	---
TOTAL	1789	2504	3136	3056	2715	2951	2747	2254	1865	581.0	751.7	789
MEAN	57.7	83.5	101	98.6	97.0	95.2	91.6	72.7	62.2	18.7	24.2	26.3
MAX	85	102	108	104	102	101	104	80	75	61	64	44
MIN	11	70	91	92	85	89	69	67	56	3.8	4.1	15

CAL YR 1982 TOTAL 18249.28 MEAN 50.0 MAX 108 MIN .00
WTR YR 1983 TOTAL 25138.7 MEAN 68.9 MAX 108 MIN 3.8

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT									
13...	1130	211	7.6	16.0	9.2	E2.3	70	11	78
JAN									
27...	1030	155	7.2	1.5	12.5	E1.8	490	350	44
APR									
13...	1000	134	7.7	8.0	11.0	E2.2	170	23	41
JUN									
09...	1300	112	7.3	19.0	10.0	E2.0	130	22	43
JUL									
27...	1230	228	8.2	25.5	7.1	2.4	20	23	82
AUG									
24...	1240	224	7.0	25.0	8.7	E2.2	<20	17	87

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
13...	20	6.9	11	1.1	51	<.5	22	13	.10
JAN									
27...	12	3.4	6.6	1.1	24	--	17	11	<.10
APR									
13...	11	3.3	5.4	.90	24	--	17	8.2	<.10
JUN									
09...	11	3.7	5.8	.90	25	.5	17	7.3	.10
JUL									
27...	21	7.1	9.2	1.5	50	--	18	13	.20
AUG									
24...	22	7.9	11	1.7	57	--	26	14	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
13...	2.3	127	E.070	1.00	.090	E.66	--	1.30	2.7
JAN									
27...	4.3	74	.010	1.10	.230	.79	1.9	.28	3.4
APR									
13...	4.2	75	.010	.800	.240	.52	1.3	.21	4.1
JUN									
09...	3.4	67	.020	.600	E.070	.45	1.1	.30	4.6
JUL									
27...	3.5	135	.100	1.30	.120	.97	2.3	.34	4.2
AUG									
24...	3.3	135	.090	E1.50	<.050	.49	--	.28	3.1

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
13...	1130	30	2	<10	240	<1	10	29
JUN								
09...	1300	50	1	<10	30	<1	20	31

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
13...	200	41	30	.1	4	<1	40	1
JUN								
09...	450	30	70	<.1	1	<1	30	1

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ

LOCATION.--Lat 40°24'41", long 74°59'13", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 29 in Stockton, 900 ft upstream from mouth.

DRAINAGE AREA.--26.6 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-63, 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
13...	1315	15	253	7.7	13.0	11.5	E1.8	<20	170	70
JAN										
27...	1215	53	795	7.4	1.0	14.1	<.8	20	1600	44
APR										
13...	1130	76	380	7.6	11.0	10.9	E1.1	50	8	40
JUN										
09...	1400	--	240	8.2	20.5	10.3	E2.0	20	8	50
JUL										
28...	1100	--	--	8.6	22.0	8.7	E1.3	20	350	63
AUG										
24...	1145	--	212	7.5	20.0	9.8	<.9	<20	920	68

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
13...	17	6.7	24	1.7	47	<.5	25	23	<.10
JAN									
27...	10	4.7	100	2.0	29	--	58	160	<.10
APR									
13...	9.5	3.9	48	1.6	20	--	34	58	<.10
JUN									
09...	12	4.9	32	1.7	30	--	30	32	<.10
JUL									
28...	15	6.2	15	1.9	46	--	25	14	<.10
AUG									
24...	16	6.9	17	2.2	53	--	25	14	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
13...	8.8	155	<.010	1.00	.060	E.30	--	2.10	2.4
JAN									
27...	9.9	363	<.010	1.80	<.050	.33	2.1	.15	3.3
APR									
13...	12	190	.010	2.20	.060	.20	2.4	.18	3.2
JUN									
09...	9.6	140	.080	2.50	E.110	.27	2.8	.33	3.0
JUL									
28...	16	127	.020	2.60	.070	.47	3.1	.18	3.4
AUG									
24...	11	145	.020	E1.80	<.050	.22	--	.09	2.1

01461300 WICKECHEOKE CREEK AT STOCKTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
OCT											
13...	1315	700	<.1	1.9	20	1	<1	<10	140	<1	<1

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT											
13...	10	2	20	30	0	460	2400	3	20	80	540

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOMCMA-TERIAL (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	<.01	4	<10	<1	<1	30	20	11	12	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	2.0	.6	.5	.2	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
13...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ

LOCATION.--Lat 40°17'20", long 74°52'08", Mercer County, Hydrologic Unit 02040105, at bridge at Washington Crossing, 1.4 mi upstream of Jacobs Creek.

DRAINAGE AREA.--6,735 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT 13...	0945	208	7.8	15.5	9.6	E3.2	50	33	78
JAN 27...	1345	157	7.7	1.5	12.9	2.3	110	920	44
APR 13...	1330	126	7.6	9.0	11.2	E1.4	130	49	41
JUN 29...	1040	244	7.4	22.5	8.4	2.3	700	79	78
JUL 27...	1415	--	8.6	26.5	9.3	E2.2	20	14	84
AUG 29...	1400	234	7.9	26.0	6.6	E1.9	50	17	80

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 13...	20	6.9	11	1.1	52	<.5	22	14	.10
JAN 27...	12	3.5	7.0	1.1	23	--	18	12	<.10
APR 13...	11	3.2	5.4	.80	24	--	18	8.4	<.10
JUN 29...	20	6.8	8.0	1.9	50	--	25	12	.20
JUL 27...	21	7.6	9.5	1.5	54	--	29	13	.20
AUG 29...	20	7.2	10	1.8	50	--	26	15	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	2.0	131	E.050	1.00	.030	.51	1.5	.65	2.7
JAN 27...	4.5	91	.010	1.10	.250	.68	1.8	.28	3.4
APR 13...	4.5	68	.010	.800	.140	.52	1.3	.18	6.8
JUN 29...	3.6	125	.060	1.30	.200	.57	1.9	1.32	3.7
JUL 27...	3.7	128	.050	1.30	<.050	.50	1.8	.40	2.6
AUG 29...	2.7	122	.080	E1.50	.120	.51	--	.31	3.3

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
13...	0945	40	1	<10	290	<1	10	22

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
13...	150	23	30	<.1	6	<1	30	1

01463500 DELAWARE RIVER AT TRENTON, NJ
(National stream quality accounting network and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.

DRAINAGE AREA.--6,780 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft downstream.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--71 years, 11,685 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft³/s Aug. 20, 1955, elevation, 28.60 ft, from high-water mark in gage house, from rating curve extended above 230,000 ft³/s; minimum, 1,180 ft³/s Oct. 31, 1963, elevation, 7.26 ft. Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft³/s. Maximum elevation since 1903, 30.6 ft National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Apr. 10	1800	54800	14.38	Apr. 26	1500	79600	16.16
Apr. 17	1630	*138000	19.89				

Minimum discharge, 2,360 ft³/s Sept. 17, gage height, 7.84 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3990	3900	6520	8530	9490	10000	20000	35800	17500	12100	3880	3510
2	4110	3740	6920	7480	9820	15200	18000	33000	16100	10400	3510	3640
3	4100	3470	7010	6870	18000	15900	22700	32100	14600	8940	3700	3490
4	4050	3370	6320	6390	41600	17400	25100	32000	14800	8100	3710	2980
5	3930	4960	5820	6220	44200	16900	23600	30300	19400	7580	3350	2790
6	3880	7810	5500	6260	30100	15400	21600	27500	18700	7020	3580	2970
7	3770	6920	5300	6390	23500	14500	19400	23600	18300	6210	3720	2970
8	3880	6070	5130	6280	20500	16000	18800	19800	22400	5990	3870	2900
9	3790	5220	4960	5900	18300	19400	25600	17900	20400	5600	3670	3810
10	3850	4630	4630	5320	15700	21900	38200	18100	17400	5280	3540	3470
11	3900	4210	4330	9080	13200	24000	51800	17800	15400	4790	3580	3120
12	3840	3950	4350	9390	10500	26600	49400	16100	13700	4260	5610	3040
13	3720	5180	4340	9550	10100	24500	39500	14700	12600	3950	6810	3280
14	3860	7000	3590	9240	10700	20700	31900	13300	11600	4320	6160	3440
15	4820	6540	3380	8130	10500	18500	26500	12300	10300	4400	5540	3590
16	4600	6080	4280	7580	11000	17700	75000	11600	9090	4390	4430	2740
17	4300	5870	9030	6830	11200	16300	129000	14800	8360	4340	3670	2470
18	4460	5380	10400	6020	11100	15900	91800	15100	8900	4120	3230	2870
19	4590	4940	11300	6320	11300	26300	66500	12800	8680	4040	3200	3140
20	4350	4660	9240	6100	11100	31900	55900	11900	10300	4710	3320	2960
21	4250	4480	8350	5160	9980	37000	47700	12300	10600	5250	3420	2880
22	4210	4600	7880	5640	10300	44300	39100	13100	9780	4660	3890	4600
23	4120	4620	7380	5980	11400	41300	35400	16200	8910	4740	3300	5070
24	3960	4640	6960	13400	13400	33400	36500	16600	7940	4930	3160	4920
25	4190	4720	6790	15500	14200	26900	53400	15300	7120	4920	3640	4180
26	4770	4990	6600	18200	13700	22700	74400	14000	6710	4410	3490	3250
27	4940	4780	6820	15800	12000	19700	71800	18000	6120	4500	3580	2690
28	4730	4430	8600	13300	10100	30300	60700	15200	5480	4170	3210	2930
29	4500	5630	10700	11800	---	29700	46700	15100	8230	3520	3420	2970
30	4370	7080	10000	10700	---	26700	39600	16200	12700	3350	3560	2620
31	3990	---	9680	9750	---	23200	---	16800	---	4230	3500	---
TOTAL	129820	153870	212110	269110	436990	720200	1355600	579300	372120	169220	120250	99290
MEAN	4188	5129	6842	8681	15610	23230	45190	18690	12400	5459	3879	3310
MAX	4940	7810	11300	18200	44200	44300	129000	35800	22400	12100	6810	5070
MIN	3720	3370	3380	5160	9490	10000	18000	11600	5480	3350	3160	2470

CAL YR 1982 TOTAL 3693440 MEAN 10120 MAX 51000 MIN 3370
WTR YR 1983 TOTAL 4617880 MEAN 12650 MAX 129000 MIN 2470

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.
pH: June 1968 to September 1978, May to September 1978, February 1980 to August 1982, April 1983 to current year.
WATER TEMPERATURES: October 1944 to September 1978, May 1979 to current year.
DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962.

REMARKS.--Missing continuous water-quality records are the result of malfunction of sensor or sampling mechanism. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.3 August 9, 10, 1983; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum, 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 18.4 mg/L January 10, 1980; minimum, 4.0 mg/L Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 250 micromhos Dec. 16; minimum, 76 micromhos Apr. 17.
pH: Maximum, 10.3 Aug. 9, 10; minimum, 7.1 Apr. 17, 18.
WATER TEMPERATURES: Maximum, 31.5°C Aug. 7, 8; minimum 0.0°C on many days during February.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L Dec. 15; minimum, 5.9 mg/L Sept. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 08...	1000	6080	205	7.0	10.0	4.0	11.0	95	5.6	K460	--
FEB 24...	1030	13700	180	7.9	5.0	4.3	12.3	96	1.1	--	K180
JUN 24...	1100	8020	174	8.5	24.5	3.0	9.9	118	3.0	140	2100
AUG 31...	1130	3460	225	8.0	26.0	1.0	7.0	85	1.4	110	3200

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 08...	64	16	5.9	9.5	2.1	43	24	11	<.10	3.2
FEB 24...	59	15	5.1	9.1	1.3	34	22	14	.10	5.6
JUN 24...	65	17	5.4	7.4	1.4	41	21	10	<.10	3.6
AUG 31...	85	21	[illegible] 8	10	1.7	55	25	15	.10	2.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV 08...	115	13	213	75	--	--	--	--	--	--
FEB 24...	107	28	1040	46	1.30	.210	.50	.080	.060	.040
JUN 24...	104	13	282	84	1.10	.020	.50	.050	.030	.010
AUG 31...	129	31	290	52	1.60	<.010	.30	.110	.100	.080

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
NOV 08...	1000	70	2	34	<1	<1	<1	<3	4	55
FEB 24...	1030	50	1	30	<1	<1	<1	<3	3	29
JUN 24...	1100	10	1	50	<0	<1	4	<3	3	21
AUG 31...	1130	<10	2	43	<0	<1	<1	<3	4	11

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 08...	2	<4	16	<.1	<10	2	<1	--	74	<6
FEB 24...	11	<4	27	.4	<10	6	<1	<1	67	<6
JUN 24...	<1	6	<1	.5	<10	1	<1	<1	68	<6
AUG 31...	1	5	3	.1	<10	2	<1	<1	80	<6

DATE	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
NOV 08...	7	3.7	<.5	2.5	18	<.5	17	<.5	.04	.15
FEB 24...	13	--	--	--	--	--	--	--	--	--
JUN 24...	5	<3.2	<.7	--	2.1	<.6	1.8	<.6	.04	.22
AUG 31...	12	--	--	--	--	--	--	--	--	--

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 08...	1000	6080	13	213	75
FEB 24...	1030	13700	28	1040	46
APR 11...	1115	50200	197	26700	--
11...	1145	50500	175	23900	86
17...	1145	137000	646	239000	47
17...	1440	137000	528	195000	41
17...	1650	138000	423	158000	29
18...	0945	91100	182	44800	38
29...	1150	46200	34	4240	38
MAY 31...	1330	16700	30	1350	17
JUN 24...	1100	8020	13	282	84
29...	1530	9440	12	306	22
30...	1430	13800	34	1270	12
JUL 29...	1500	3460	5	47	--
AUG 12...	1530	6590	16	285	--
13...	1045	6460	38	663	--
31...	1130	3460	31	290	52

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	217	210	213	187	177	181	196	192	194	136	134	135
2	224	217	220	184	177	180	203	194	199	140	134	136
3	223	219	221	191	186	188	199	192	195	148	140	144
4	222	213	218	192	187	190	190	182	185	152	146	149
5	216	212	214	188	187	187	186	183	184	160	151	155
6	217	212	214	210	187	199	188	184	187	168	161	164
7	218	212	216	206	183	196	190	187	188	175	170	173
8	219	218	218	184	177	179	193	187	189	180	176	179
9	221	216	218	178	177	177	201	193	196	181	172	176
10	221	216	217	178	177	178	203	197	200	174	154	170
11	222	217	220	186	178	182	205	201	202	---	---	---
12	218	211	216	194	186	189	206	201	203	---	---	---
13	217	214	216	200	175	192	207	201	204	---	---	---
14	215	210	213	204	197	200	206	196	200	---	---	---
15	229	214	217	204	194	197	210	202	204	---	---	---
16	248	229	241	194	188	191	250	206	225	---	---	---
17	230	205	212	187	184	185	217	192	207	---	---	---
18	207	203	205	188	184	185	217	170	193	---	---	---
19	206	194	201	192	188	190	167	139	152	---	---	---
20	194	187	189	194	188	191	145	136	140	---	---	---
21	196	185	190	201	193	196	156	145	150	---	---	---
22	199	195	197	203	198	200	164	158	161	---	---	---
23	199	195	197	202	195	199	163	159	161	---	---	---
24	200	194	198	199	194	196	163	160	161	---	---	---
25	200	193	197	198	193	195	168	161	165	---	---	---
26	197	190	192	195	189	193	169	165	166	---	---	---
27	190	177	185	189	178	184	168	165	166	---	---	---
28	188	182	187	181	174	178	166	161	164	---	---	---
29	191	186	187	182	175	179	162	135	144	---	---	---
30	193	187	190	195	174	184	139	134	136	---	---	---
31	188	183	186	---	---	---	138	134	135	---	---	---
MONTH	248	177	207	210	174	189	250	134	179	181	134	158

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	162	152	158	179	171	175	131	124	127	111	108	110
2	164	158	161	177	156	165	134	132	133	112	109	111
3	171	159	162	170	155	166	134	106	116	114	112	113
4	160	100	122	163	143	154	128	120	124	112	110	111
5	99	91	94	142	135	138	121	119	120	112	110	111
6	98	94	95	134	129	132	122	119	120	112	109	111
7	107	98	102	133	128	132	125	121	123	118	113	115
8	119	105	111	135	130	133	130	126	128	125	118	121
9	121	115	119	133	124	128	133	127	130	131	125	128
10	124	120	122	125	118	122	130	98	115	132	129	131
11	134	123	128	124	119	122	120	103	111	129	123	125
12	144	131	137	123	113	117	104	99	102	128	124	126
13	155	141	149	118	113	116	105	99	103	132	128	129
14	149	143	147	121	118	120	111	106	109	136	132	135
15	154	149	151	126	121	123	119	112	116	142	138	141
16	154	149	153	127	122	124	119	87	99	149	141	146
17	150	144	148	127	125	126	89	76	80	152	147	150
18	154	148	150	130	125	128	90	79	86	149	133	139
19	160	153	156	129	114	122	96	88	93	139	133	136
20	160	158	159	129	109	117	106	97	102	146	140	143
21	162	157	159	116	103	112	109	106	107	151	146	149
22	167	159	163	113	103	110	115	109	113	152	144	147
23	164	159	163	110	103	108	118	116	117	148	130	140
24	167	159	163	109	101	105	119	115	118	155	144	150
25	160	154	158	115	109	112	115	107	111	144	136	140
26	156	149	153	120	115	117	108	89	96	141	133	138
27	155	148	152	123	119	122	92	90	91	143	114	128
28	173	150	160	127	117	120	96	90	93	147	142	145
29	---	---	---	127	120	123	104	98	101	147	137	143
30	---	---	---	122	119	121	109	105	107	144	137	142
31	---	---	---	123	118	120	---	---	---	144	140	143
MONTH	173	91	143	179	101	127	134	76	110	155	108	132

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	140	133	137	159	136	142	229	218	223	219	216	217
2	133	130	131	153	137	145	233	216	225	219	210	214
3	135	133	134	158	151	154	223	216	219	222	216	218
4	138	134	136	161	156	158	230	215	225	227	223	225
5	145	126	135	162	160	161	225	216	222	225	222	224
6	127	121	124	164	157	162	233	222	228	226	223	225
7	126	120	122	171	165	168	234	228	231	228	223	226
8	128	110	118	174	171	172	233	229	232	223	219	221
9	112	109	111	184	175	181	232	217	225	222	220	221
10	118	111	115	190	182	187	217	212	215	220	201	207
11	124	118	121	193	185	189	217	144	206	204	199	202
12	129	124	125	198	187	190	214	187	209	213	195	206
13	132	129	131	209	199	204	230	212	220	216	200	213
14	137	132	135	222	210	217	212	195	204	217	212	214
15	145	137	141	222	213	218	194	185	189	218	214	216
16	158	144	151	218	211	214	187	183	184	---	---	---
17	165	157	161	214	206	211	200	187	192	---	---	---
18	170	164	166	208	202	205	215	201	207	---	---	---
19	169	164	166	208	200	204	225	216	220	---	---	---
20	168	160	164	212	207	210	231	225	228	239	229	233
21	162	156	159	217	209	214	236	231	234	240	153	222
22	169	160	166	211	207	209	233	229	231	219	158	211
23	169	164	166	213	205	208	229	211	218	215	196	206
24	173	166	168	214	203	210	220	212	216	208	186	199
25	177	171	173	207	200	203	226	221	223	186	178	181
26	182	178	180	213	207	212	228	221	224	187	175	179
27	189	183	187	212	210	210	220	211	214	197	186	193
28	192	187	189	209	202	205	213	204	208	214	198	205
29	200	189	194	204	198	200	218	205	212	217	212	215
30	202	182	190	214	205	211	216	212	214	220	215	217
31	---	---	---	229	214	223	220	214	218	---	---	---
MONTH	202	109	150	229	136	193	236	144	217	240	153	212
YEAR	250	76	168									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
MONTH												

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1							---	---	---	7.6	7.5	7.5
2							---	---	---	7.5	7.5	7.5
3							---	---	---	7.6	7.5	7.5
4							---	---	---	7.7	7.6	7.6
5							---	---	---	7.7	7.4	7.6
6							8.0	7.8	7.9	7.6	7.3	7.4
7							7.9	7.8	7.9	7.4	7.2	7.3
8							7.9	7.6	7.8	7.3	7.2	7.3
9							7.8	7.5	7.6	7.5	7.3	7.4
10							7.9	7.5	7.7	7.5	7.4	7.4
11							7.7	7.5	7.6	7.6	7.5	7.5
12							7.5	7.5	7.5	7.8	7.5	7.7
13							7.6	7.5	7.5	8.0	7.5	7.8
14							7.6	7.6	7.6	8.1	7.6	7.8
15							7.6	7.6	7.6	8.1	7.7	7.8
16							7.6	7.3	7.4	7.9	7.7	7.8
17							7.3	7.1	7.2	8.5	7.8	8.2
18							7.3	7.1	7.2	8.9	7.8	8.3
19							7.4	7.2	7.3	8.9	7.9	8.3
20							7.5	7.3	7.4	9.0	7.9	8.3
21							7.5	7.4	7.5	8.8	7.8	8.2
22							7.5	7.5	7.5	7.9	7.6	7.7
23							7.6	7.5	7.6	7.8	7.5	7.7
24							7.5	7.5	7.5	8.2	7.7	7.9
25							7.5	7.4	7.5	8.7	7.9	8.2
26							7.5	7.3	7.4	8.9	7.8	8.2
27							7.3	7.2	7.3	7.9	7.5	7.6
28							7.4	7.3	7.3	8.1	7.8	7.9
29							7.5	7.3	7.4	8.1	7.9	8.0
30							7.6	7.4	7.5	8.0	7.9	8.0
31							---	---	---	8.2	7.9	8.0
MONTH							8.0	7.1	7.5	9.0	7.2	7.8

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	8.1	8.2	8.1	7.7	7.9	9.7	8.6	9.1			
2	8.3	8.1	8.2	8.6	7.8	8.1	9.9	8.5	9.2			
3	8.2	8.0	8.1	9.3	7.9	8.6	10.0	8.8	9.5			
4	8.3	8.0	8.1	9.8	8.3	9.1	10.1	9.2	9.7			
5	8.1	7.9	8.0	9.8	8.6	9.3	10.0	9.0	9.5			
6	8.1	7.8	7.9	9.9	8.6	9.4	10.1	8.8	9.5			
7	8.2	7.8	8.0	9.9	8.9	9.5	10.2	9.0	9.7			
8	7.9	7.6	7.7	9.9	8.9	9.5	10.2	9.1	9.7			
9	7.7	7.6	7.6	9.9	8.9	9.5	10.3	9.2	9.8			
10	7.9	7.5	7.7	10.0	8.9	9.5	10.3	9.4	9.9			
11	8.3	7.6	7.9	10.0	9.1	9.6	10.0	7.8	9.5			
12	8.7	7.8	8.2	10.1	9.1	9.7	9.4	8.6	8.9			
13	9.1	7.9	8.4	10.1	9.2	9.7	8.8	8.5	8.6			
14	9.3	8.1	8.7	10.1	9.4	9.8	8.7	8.4	8.6			
15	9.5	8.3	8.9	10.1	9.2	9.7	9.0	8.3	8.6			
16	9.5	8.4	9.1	10.1	9.1	9.6	9.4	8.3	8.9			
17	9.5	8.7	9.1	10.0	8.7	9.4	9.7	8.3	9.0			
18	9.4	8.6	9.0	10.0	8.7	9.4	9.7	8.4	9.0			
19	9.4	8.3	8.9	9.6	8.8	9.2	10.0	8.6	9.3			
20	8.5	7.7	8.1	9.5	8.2	8.9	10.0	9.0	9.6			
21	7.9	7.7	7.8	9.8	8.4	9.1	9.9	9.1	9.5			
22	8.4	7.8	8.0	9.8	8.4	9.2	9.8	8.9	9.4			
23	9.0	7.9	8.4	9.9	8.7	9.3	9.8	8.7	9.3			
24	9.4	8.1	8.8	9.7	8.6	9.2	9.8	8.7	9.3			
25	9.7	8.3	9.1	9.6	8.5	9.1	9.9	8.8	9.4			
26	9.8	8.6	9.3	9.7	8.5	9.1	10.0	8.9	9.5			
27	9.9	8.8	9.5	9.7	8.6	9.2	9.9	8.7	9.3			
28	9.5	8.5	9.2	9.9	8.7	9.4	9.8	8.5	9.1			
29	9.1	8.2	8.6	9.9	8.6	9.3	9.6	8.3	8.9			
30	8.3	7.8	8.2	9.9	8.6	9.3	9.6	8.3	8.8			
31	---	---	---	9.7	8.6	9.2	9.1	8.3	8.6			
MONTH	9.9	7.5	8.4	10.1	7.7	9.3	10.3	7.8	9.3			

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.5	18.0	19.5	15.0	12.0	13.5	6.5	6.0	6.5	5.0	4.0	4.5
2	21.5	18.5	20.0	16.0	13.0	14.5	7.5	6.5	7.0	4.0	3.5	4.0
3	21.0	17.5	19.0	16.0	14.0	15.0	8.5	8.0	8.0	4.0	3.0	3.5
4	21.5	18.5	20.0	17.5	15.0	16.5	10.5	8.5	9.5	3.0	2.0	2.5
5	21.5	18.5	20.0	17.0	12.5	15.0	11.5	10.5	11.0	2.5	2.0	2.5
6	22.0	19.0	20.5	13.0	11.5	12.0	12.5	11.5	12.0	4.0	2.5	3.0
7	22.0	19.5	20.5	11.5	10.5	11.0	12.0	10.0	11.0	4.0	2.5	3.5
8	22.0	20.0	21.0	11.5	9.5	10.5	10.5	9.0	9.5	4.0	3.0	3.5
9	22.5	20.5	21.0	11.0	9.5	10.5	9.0	6.0	8.0	3.5	3.0	3.0
10	21.0	18.5	20.0	11.0	9.0	10.0	6.0	4.5	5.0	4.5	3.0	3.5
11	19.5	16.5	18.0	10.5	8.5	9.5	5.0	5.0	5.0	---	---	---
12	17.5	16.5	17.0	12.0	9.0	10.5	4.5	2.5	3.5	---	---	---
13	16.5	16.0	16.5	12.5	10.0	11.5	3.0	1.5	2.0	---	---	---
14	18.0	15.5	16.5	10.0	8.5	9.0	2.5	.5	1.5	---	---	---
15	17.0	15.0	16.0	9.0	8.0	8.5	3.0	1.0	2.0	---	---	---
16	15.5	13.0	14.5	8.0	7.0	7.5	6.0	3.0	4.5	---	---	---
17	14.0	12.0	13.0	7.5	6.5	7.0	5.0	4.5	5.0	---	---	---
18	13.5	11.0	12.0	8.0	6.0	7.0	4.5	3.5	4.0	---	---	---
19	14.5	11.0	12.5	8.0	7.5	7.5	3.0	2.0	2.5	---	---	---
20	15.0	12.0	13.5	8.5	7.0	7.5	2.0	2.0	2.0	---	---	---
21	15.5	13.5	14.0	9.5	8.0	8.5	2.5	2.0	2.0	---	---	---
22	14.5	12.0	13.0	10.5	9.0	9.5	3.0	2.0	2.5	---	---	---
23	13.5	11.0	12.0	11.0	9.5	10.0	3.0	2.5	3.0	---	---	---
24	12.5	10.5	11.5	10.0	8.0	9.5	4.5	3.0	4.0	---	---	---
25	11.0	10.5	10.5	8.5	7.0	7.5	5.5	4.0	5.0	---	---	---
26	12.0	10.0	10.5	8.0	7.0	7.5	6.5	5.5	6.0	---	---	---
27	12.0	10.0	11.0	7.5	6.0	7.0	5.5	5.0	5.0	---	---	---
28	12.5	10.0	11.0	5.5	4.5	5.0	7.0	5.0	5.5	---	---	---
29	13.0	10.5	11.5	6.0	5.0	5.5	7.0	6.0	6.5	---	---	---
30	13.5	11.0	12.0	7.0	5.5	6.0	5.5	5.0	5.0	---	---	---
31	13.5	11.5	12.5	---	---	---	5.0	4.5	5.0	---	---	---
MONTH	22.5	10.0	15.5	17.5	4.5	9.5	12.5	.5	5.5	5.0	2.0	3.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	2.5	3.0	4.5	4.0	4.5	8.0	6.0	7.0	15.0	13.0	14.0
2	4.5	3.0	3.5	6.0	4.5	5.5	7.5	7.0	7.5	15.0	14.0	14.5
3	5.5	4.5	5.0	7.0	5.5	6.0	8.0	7.5	7.5	15.5	14.5	15.0
4	5.0	3.5	4.5	7.0	6.0	6.5	8.5	7.5	8.0	15.0	14.5	14.5
5	3.0	1.5	2.0	7.5	6.5	7.0	9.0	7.5	8.5	14.5	13.5	14.0
6	1.5	1.0	1.0	7.0	6.5	7.0	9.5	8.5	9.0	14.0	13.0	13.5
7	1.0	.5	.5	7.0	7.0	7.0	10.0	9.5	9.5	14.5	13.0	13.5
8	1.5	.5	1.0	6.5	6.0	6.5	10.0	9.5	10.0	15.0	13.5	14.5
9	2.0	.5	1.0	6.5	6.0	6.0	10.5	10.0	10.0	14.5	13.5	14.0
10	1.5	.5	1.0	6.0	5.5	6.0	10.0	9.0	9.5	14.5	13.0	14.0
11	1.0	.0	.5	6.0	5.5	6.0	9.0	8.5	9.0	14.5	13.0	13.5
12	.0	.0	.0	6.0	5.0	5.5	9.0	8.5	8.5	13.5	12.5	13.0
13	.5	.0	.0	6.0	4.5	5.5	9.5	8.5	9.0	14.5	12.0	13.5
14	.5	.0	.0	6.5	5.0	5.5	10.0	9.0	9.5	16.0	13.5	14.5
15	1.5	.0	.5	7.5	6.0	7.0	11.0	9.5	10.5	16.0	15.0	15.5
16	2.5	.5	1.5	8.5	7.0	7.5	11.0	8.5	10.0	16.0	14.0	15.0
17	2.5	2.0	2.5	8.0	7.5	7.5	8.5	7.0	8.0	15.5	13.5	14.5
18	4.0	2.5	3.5	7.5	7.0	7.5	8.0	7.0	7.5	15.5	13.5	14.5
19	4.5	3.0	4.0	8.5	7.5	8.0	7.5	6.5	7.0	15.0	14.5	15.0
20	4.5	3.5	4.0	9.0	8.0	8.5	6.0	6.0	6.0	15.5	14.5	15.0
21	4.5	3.5	4.0	8.5	8.0	8.0	7.0	5.5	6.5	16.5	15.5	16.0
22	5.5	4.0	4.5	8.0	6.5	7.5	8.0	6.5	7.5	16.0	15.5	16.0
23	5.0	4.5	5.0	6.5	5.5	6.0	9.0	7.5	8.5	17.5	16.0	16.5
24	5.5	4.5	5.0	5.5	5.0	5.5	9.5	9.0	9.0	18.5	17.0	18.0
25	5.5	5.0	5.0	5.5	4.5	5.0	9.5	8.0	9.0	19.5	17.5	18.5
26	5.0	3.5	4.5	6.0	4.5	5.0	8.5	8.0	8.0	18.5	17.0	18.0
27	4.5	3.0	4.0	5.5	5.0	5.5	8.5	7.5	8.0	17.0	15.5	16.0
28	4.0	3.5	4.0	6.0	6.0	6.0	10.5	8.5	9.5	17.5	16.0	17.0
29	---	---	---	7.0	6.0	6.5	12.0	10.5	11.0	17.5	16.5	16.5
30	---	---	---	7.0	6.0	6.5	13.5	12.0	12.5	17.0	16.0	16.5
31	---	---	---	6.5	6.0	6.5	---	---	---	17.0	16.0	16.5
MONTH	5.5	.0	2.5	9.0	4.0	6.5	13.5	5.5	8.5	19.5	12.0	15.0

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	15.5	16.5	24.0	23.0	23.5	30.0	27.0	28.5	28.0	24.5	26.0
2	17.5	15.5	16.5	25.5	23.0	24.5	30.5	26.5	28.0	28.0	25.0	26.0
3	18.0	16.5	17.5	27.5	24.5	26.0	30.5	26.5	28.5	28.0	24.0	26.0
4	18.5	17.5	18.0	28.5	26.0	27.5	30.0	27.5	28.5	27.5	24.5	26.0
5	19.5	18.0	19.0	28.0	27.0	27.5	29.0	27.0	28.0	29.0	24.5	26.5
6	20.0	18.5	19.5	28.0	25.5	27.0	30.0	27.0	28.5	29.5	26.0	27.5
7	21.0	19.5	20.5	27.0	24.0	25.5	31.5	27.5	29.5	29.0	26.0	27.5
8	20.5	19.5	20.0	27.5	24.0	25.5	31.5	28.0	29.5	28.5	24.5	26.5
9	20.5	19.0	19.5	27.5	24.5	26.0	31.0	28.5	29.5	28.0	24.0	26.0
10	20.5	18.5	19.5	27.0	23.5	25.0	30.0	26.5	28.0	28.5	24.5	26.5
11	21.0	19.0	20.0	27.0	23.0	25.0	28.5	25.0	27.0	29.0	25.5	27.0
12	22.0	20.0	21.0	28.5	23.5	26.0	27.5	25.0	26.0	28.0	25.5	26.5
13	23.5	21.5	22.5	29.5	25.5	27.0	25.0	23.0	24.0	25.0	23.0	24.5
14	24.5	22.5	23.5	29.5	25.5	27.5	25.0	22.0	23.5	24.5	22.0	23.0
15	25.5	23.5	24.5	30.0	26.0	28.0	26.0	22.5	24.0	24.0	20.5	22.0
16	27.0	24.5	25.5	30.5	27.0	28.5	26.5	23.0	24.5	---	---	---
17	27.0	25.5	26.0	31.0	27.5	29.0	27.5	23.5	25.5	---	---	---
18	26.5	25.0	25.5	31.0	27.5	29.5	27.5	24.5	26.0	---	---	---
19	26.5	25.0	25.5	30.0	27.5	28.5	29.5	25.5	27.0	---	---	---
20	25.0	23.5	24.5	30.0	27.0	28.0	29.5	26.0	28.0	25.5	22.0	23.5
21	23.5	22.0	22.5	30.5	27.0	28.5	29.0	25.5	27.5	23.5	21.5	23.0
22	24.0	21.0	22.5	28.5	25.5	27.0	29.0	25.0	27.0	22.0	19.5	21.0
23	25.0	22.0	23.5	28.0	24.5	26.0	29.0	25.5	27.0	20.5	18.5	19.5
24	26.0	23.5	25.0	28.0	25.0	26.5	29.0	25.5	27.0	20.0	17.0	18.5
25	26.5	24.5	25.5	27.5	25.5	26.0	28.0	25.0	26.5	20.0	16.5	18.0
26	26.0	23.5	25.0	28.0	24.5	26.5	28.5	24.5	26.0	19.5	16.5	18.0
27	27.5	24.0	25.5	29.0	24.5	26.5	29.0	25.0	26.5	21.0	16.5	18.5
28	26.5	24.0	25.5	29.5	26.0	27.5	28.5	26.0	27.0	21.0	18.0	19.5
29	25.5	23.0	24.0	29.5	26.0	27.5	28.5	26.0	27.0	19.5	17.5	18.5
30	24.5	23.0	24.0	30.5	26.5	28.0	28.5	25.5	27.0	18.0	17.5	17.5
31	---	---	---	30.0	27.0	28.5	27.0	25.5	26.5	---	---	---
MONTH	27.5	15.5	22.5	31.0	23.0	27.0	31.5	22.0	27.0	29.5	16.5	23.0
YEAR	31.5	.0	14.5									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.4	8.1	9.5	12.5	8.2	9.9	12.0	10.6	11.0	11.6	10.7	11.1
2	11.4	8.3	9.6	12.7	8.2	10.0	11.2	10.2	10.7	12.4	11.1	11.7
3	11.7	8.4	9.7	11.8	8.0	9.3	10.6	9.8	10.2	13.1	11.0	11.9
4	11.8	8.5	9.8	10.6	7.5	8.5	11.6	9.6	10.2	11.2	10.5	10.8
5	12.0	8.4	9.9	9.4	7.1	8.0	11.2	9.0	9.9	10.7	10.4	10.5
6	12.0	8.3	9.8	8.8	7.8	8.2	11.1	8.7	9.5	11.3	10.3	10.6
7	12.0	8.3	9.7	9.6	7.9	8.7	11.7	8.6	9.9	11.0	10.2	10.5
8	12.0	8.0	9.6	10.1	8.8	9.3	12.7	9.2	10.5	11.0	10.2	10.5
9	11.8	7.9	9.5	11.1	9.1	9.9	12.7	9.5	10.8	10.9	10.2	10.5
10	11.7	8.0	9.6	11.5	9.3	10.1	13.3	10.4	11.6	10.9	10.1	10.3
11	12.1	8.6	10.0	11.7	9.4	10.3	12.8	10.7	11.5	---	---	---
12	10.8	8.7	9.5	11.3	9.1	9.9	13.8	10.9	12.0	---	---	---
13	10.6	8.5	9.2	10.2	8.6	9.2	14.7	11.7	12.9	---	---	---
14	11.6	8.4	9.7	10.1	9.1	9.5	15.4	12.4	13.6	---	---	---
15	10.9	8.4	9.4	10.9	9.5	10.1	15.5	12.8	13.8	---	---	---
16	10.5	8.0	9.1	11.8	10.1	10.8	12.9	11.2	12.1	---	---	---
17	11.3	8.5	9.7	11.9	10.6	11.1	11.3	10.7	11.0	---	---	---
18	11.8	9.1	10.3	12.5	10.7	11.4	11.7	10.5	11.0	---	---	---
19	12.2	9.3	10.5	11.9	10.6	11.1	11.4	10.4	10.8	---	---	---
20	12.4	9.3	10.4	12.6	10.5	11.4	11.7	10.9	11.3	---	---	---
21	12.5	9.0	10.4	12.9	10.6	11.4	12.5	11.6	11.9	---	---	---
22	12.5	9.3	10.6	13.0	10.3	11.1	12.9	11.8	12.3	---	---	---
23	13.0	9.5	10.9	13.0	10.0	11.1	12.3	11.5	11.9	---	---	---
24	12.9	9.7	11.0	12.1	10.0	10.7	12.2	11.3	11.7	---	---	---
25	10.4	7.5	9.3	13.3	10.4	11.5	12.1	11.0	11.5	---	---	---
26	13.5	7.4	10.0	13.8	10.8	11.8	11.5	10.6	11.0	---	---	---
27	14.4	10.4	11.8	14.1	11.1	12.4	11.9	10.4	11.1	---	---	---
28	12.0	9.1	10.4	14.6	11.9	12.9	11.9	10.0	11.0	---	---	---
29	12.2	8.7	10.1	14.2	11.1	12.3	10.7	9.9	10.2	---	---	---
30	12.2	8.7	10.0	13.7	10.7	11.4	10.9	10.4	10.7	---	---	---
31	11.8	8.4	9.8	---	---	---	11.2	10.5	10.8	---	---	---
MONTH	14.4	7.4	10.0	14.6	7.1	10.4	15.5	8.6	11.2	13.1	10.1	10.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1							---	---	---	9.9	9.4	9.7
2							---	---	---	9.6	9.4	9.5
3							---	---	---	9.6	9.4	9.5
4							---	---	---	9.7	9.4	9.6
5							---	---	---	9.8	9.5	9.7
6							11.3	10.9	11.1	10.1	9.8	10.0
7							11.1	10.7	10.9	10.2	9.9	10.1
8							11.0	10.6	10.8	9.9	9.4	9.8
9							10.8	10.5	10.6	9.8	9.4	9.6
10							11.0	10.6	10.8	9.8	9.3	9.6
11							11.1	10.7	10.9	9.8	9.3	9.6
12							11.2	11.0	11.1	9.8	9.3	9.7
13							11.4	11.2	11.3	10.0	9.3	9.6
14							11.2	11.0	11.1	10.0	9.0	9.4
15							11.0	10.7	10.9	9.5	8.5	8.8
16							10.9	10.5	10.7	8.8	8.2	8.5
17							11.4	10.9	11.1	10.6	8.8	9.7
18							11.4	11.3	11.4	11.2	9.3	10.2
19							11.5	11.4	11.4	11.1	9.3	10.1
20							11.9	11.5	11.7	11.3	9.3	10.0
21							12.0	11.8	11.9	10.8	8.9	9.6
22							11.8	11.5	11.6	8.9	8.4	8.6
23							11.5	11.2	11.4	8.8	7.9	8.4
24							11.2	10.7	10.9	9.3	8.3	8.7
25							11.0	10.5	10.8	10.1	8.2	9.1
26							11.3	11.0	11.2	10.4	8.5	9.2
27							11.4	11.3	11.3	8.9	8.5	8.7
28							11.3	10.8	11.1	9.5	8.5	9.0
29							10.8	10.3	10.6	9.4	8.9	9.1
30							10.3	9.9	10.2	9.4	9.0	9.1
31							---	---	---	9.1	8.3	8.8
MONTH							12.0	9.9	11.1	11.3	7.9	9.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	8.2	8.4	7.7	6.9	7.3	10.8	7.3	8.8	10.2	5.9	7.8
2	8.9	8.3	8.5	8.8	7.1	7.8	11.3	6.3	8.6	10.6	6.4	8.0
3	8.6	8.1	8.4	9.9	7.1	8.4	12.1	6.7	9.2	11.1	6.5	8.5
4	8.5	7.7	8.1	10.9	7.1	8.9	12.6	6.9	9.3	11.6	6.6	8.5
5	8.2	7.6	7.9	10.4	6.9	8.6	11.5	6.6	8.6	11.9	6.5	8.8
6	8.3	7.8	8.0	11.0	7.0	8.9	12.4	6.6	9.2	11.8	6.4	8.7
7	8.4	7.7	8.0	11.0	7.3	9.1	13.2	6.7	9.6	11.7	6.4	8.7
8	7.9	7.6	7.7	10.9	7.4	9.1	13.3	6.9	9.7	12.4	6.6	9.1
9	8.4	7.7	8.1	10.9	7.3	9.1	12.7	7.1	9.8	12.5	6.9	9.3
10	8.9	8.0	8.4	10.9	7.2	9.0	12.2	7.3	9.6	12.0	7.2	9.2
11	9.2	8.1	8.7	11.2	7.3	9.1	11.2	6.9	8.5	11.9	6.9	8.9
12	9.7	8.2	8.8	12.1	7.3	9.4	9.0	6.6	7.4	11.5	6.7	8.4
13	10.0	8.1	9.0	12.0	7.3	9.5	7.9	6.5	7.2	8.9	6.7	7.6
14	10.4	8.0	9.1	11.9	7.0	9.3	8.8	7.3	8.0	11.1	7.1	8.8
15	11.1	8.0	9.4	12.1	7.0	9.2	9.7	7.7	8.6	13.1	8.1	10.4
16	11.5	7.9	9.5	11.4	6.6	8.8	10.0	8.0	8.8	---	---	---
17	11.5	7.9	9.4	11.3	6.4	8.7	10.8	7.1	8.7	---	---	---
18	10.7	7.9	9.2	11.5	6.6	8.8	10.7	6.8	8.5	---	---	---
19	11.2	7.8	9.3	9.5	6.5	7.8	12.4	6.9	9.3	---	---	---
20	8.9	7.1	8.0	10.3	6.3	8.1	12.0	6.9	9.2	14.5	8.0	11.0
21	8.0	7.1	7.5	11.2	6.6	8.7	11.1	6.6	8.7	10.5	6.8	8.6
22	9.2	7.6	8.3	10.7	6.7	8.6	10.7	6.5	8.3	9.2	6.8	7.9
23	10.3	7.9	9.0	11.1	7.1	9.0	10.5	6.6	8.4	9.2	7.3	8.1
24	11.5	7.9	9.6	10.5	7.0	8.6	10.8	6.7	8.5	9.6	7.9	8.6
25	12.1	7.7	9.8	10.5	6.9	8.7	11.4	6.9	8.8	10.1	8.2	9.0
26	12.9	7.6	10.1	10.7	7.2	8.9	11.5	7.0	8.9	10.5	8.2	9.1
27	13.6	7.9	10.6	11.1	7.4	9.2	11.0	6.7	8.4	11.3	8.2	9.5
28	10.2	7.6	8.8	11.7	7.3	9.3	10.5	6.3	8.0	11.4	8.2	9.6
29	9.9	7.1	8.3	11.8	7.3	9.2	9.8	6.2	7.6	11.1	8.3	9.5
30	7.9	7.1	7.5	12.3	7.3	9.5	10.0	6.2	7.8	9.1	7.7	8.5
31	---	---	---	11.5	7.4	9.2	8.6	6.2	7.3	---	---	---
MONTH	13.6	7.1	8.7	12.3	6.3	8.8	13.3	6.2	8.6	14.5	5.9	8.9

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ

LOCATION.--Lat 40°16'11", long 74°40'20", Mercer County, Hydrologic Unit 02040105, on left bank 200 ft upstream from bridge on Quaker Bridge Road, 1.9 mi south of Clarksville, 2.0 mi upstream from Shipetaukin Creek, and 7.6 mi upstream of mouth.

DRAINAGE AREA.--34.3 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1965, 1967, and 1979 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Water Resources Division. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 05...	1410	14	150	7.3	20.0	10.6	E4.3	20	7	39
JAN 18...	0930	46	160	6.0	.0	15.2	E.8	40	240	44
MAR 24...	1100	124	108	6.5	6.0	11.6	E2.3	170	240	31
MAY 25...	0900	65	120	6.5	18.0	8.5	E3.9	80	79	38
JUL 26...	1050	20	124	6.9	25.5	8.2	E2.0	<20	130	40
AUG 25...	1350	17	116	7.3	27.0	9.3	3.9	<20	79	40

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	8.5	4.4	4.9	2.9	15	<.5	15	12	<.10
JAN 18...	9.7	4.8	6.8	3.3	7.0	--	23	12	.10
MAR 24...	7.0	3.3	5.9	2.5	6.0	--	21	9.7	.10
MAY 25...	8.4	4.2	5.1	2.3	12	<.5	--	15	.10
JUL 26...	8.4	4.6	6.5	2.6	20	--	16	13	.20
AUG 25...	8.8	4.3	4.6	2.7	15	--	19	11	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	3.6	94	.010	.400	<.050	.51	.91	.15	2.8
JAN 18	6.9	98	.030	1.50	.140	.89	2.4	.34	4.6
MAR 24...	4.7	88	.040	1.30	.140	1.5	2.8	E.52	6.6
MAY 25...	3.0	82	.010	1.20	.090	.78	2.0	.24	4.7
JUL 26...	2.0	99	E.030	E.700	E.160	.65	--	E.28	4.7
AUG 25...	3.5	77	.020	.400	.080	.87	1.3	.18	5.1

01463620 ASSUNPINK CREEK NEAR CLARKSVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
05...	1410	560	<.1	1.5	70	2	<1	<10	50	1	<1
MAY											
25...	0900	--	--	--	<10	1	--	<10	40	1	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT											
05...	10	3	<10	56	0	450	980	4	10	50	83
MAY											
25...	10	--	--	5	--	750	--	5	--	50	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.1	<.01	3	<10	<1	<1	20	6	<1	<1	<1.0
MAY											
25...	<.1	--	2	--	<1	--	40	--	<1	--	--

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.1	<1.0	1.4	1.9	1.4	<.1	<.1	<.1	<.1	<.1	<.1
MAY											
25...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY											
25...	--	--	--	--	--	--	--	--	--	--	--

01464000 ASSUNPINK CREEK AT TRENTON, NJ

LOCATION.--Lat 40°13'27", long 74°44'58", Mercer County, Hydrologic Unit 02040105, on left bank 20 ft upstream from Chambers Street Bridge in Trenton, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--90.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1923 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since July 10, 1932. Datum of gage is 24.76 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Records include water diverted from outside the basin since February 1954 for municipal supply which returns to Assunpink Creek through Ewing-Lawrence Sewerage Authority Treatment Plant, 2.4 mi above station (records given herein). In addition there is an average inflow of about 2.0 ft³/s from industrial use of water that originates outside the basin. Some diversion for irrigation in headwater area during summer months. Flow regulated by several flood-control reservoirs upstream of gage since mid-1970's.

AVERAGE DISCHARGE.--60 years, 128 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft³/s July 21, 1975, gage height, 14.61 ft, from high-water mark in gage house; minimum, 1.0 ft³/s Aug. 21, Oct. 22, 1931, gage height, 0.25 ft; minimum daily, 4.0 ft³/s July 21, Aug. 8, Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 21	1545	1760	8.16	Apr. 16	1330	*2470	9.93
Mar. 28	0100	1070	6.34	Apr. 25	0800	1360	7.14
Apr. 3	1100	1110	6.45	Aug. 11	1900	1070	6.34
Apr. 10	1515	1700	8.00				

Minimum discharge, 29 ft³/s Oct. 17, gage height, 2.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	54	138	64	91	181	236	267	270	148	59	127
2	45	54	135	62	99	423	214	248	228	94	55	126
3	42	53	103	62	168	240	660	226	202	73	52	116
4	43	53	92	60	120	185	424	236	315	69	51	102
5	43	81	85	82	99	160	306	201	259	87	57	92
6	42	56	92	138	91	144	264	181	197	87	62	87
7	42	51	82	86	105	193	241	165	171	82	50	81
8	42	52	77	78	100	345	312	153	153	92	50	76
9	43	51	73	73	91	410	450	150	136	133	48	71
10	39	50	70	102	85	463	994	134	125	111	45	67
11	39	49	69	346	80	343	661	121	115	94	254	59
12	39	49	68	161	79	527	429	120	106	84	239	121
13	42	367	67	127	80	347	355	116	102	77	127	104
14	44	122	64	114	81	266	309	110	96	71	96	65
15	40	90	65	214	84	232	285	110	91	66	87	59
16	37	78	234	193	99	209	1570	358	96	64	82	55
17	35	72	129	144	123	198	864	281	79	55	76	52
18	38	69	99	123	164	360	524	125	75	56	72	48
19	38	68	89	105	172	636	504	88	77	55	70	85
20	39	65	95	93	159	341	537	116	158	62	64	119
21	63	62	87	87	169	898	447	191	315	69	58	92
22	45	61	81	82	201	636	368	229	162	84	57	75
23	42	60	79	219	247	399	331	360	127	55	55	66
24	40	58	78	165	236	356	580	250	115	66	51	60
25	98	53	73	127	193	309	1040	191	105	74	50	57
26	177	52	72	115	165	259	541	223	94	62	48	55
27	72	51	71	107	145	331	405	492	75	57	45	55
28	62	55	69	101	135	639	356	335	96	55	43	53
29	58	266	75	94	---	383	318	277	143	53	135	55
30	55	111	70	95	---	296	292	494	169	61	96	68
31	52	---	66	102	---	258	---	371	---	97	124	---
TOTAL	1584	2413	2747	3721	3661	10967	14817	6919	4452	2393	2458	2348
MEAN	51.1	80.4	88.6	120	131	354	494	223	148	77.2	79.3	78.3
MAX	177	367	234	346	247	898	1570	494	315	148	254	127
MIN	35	49	64	60	79	144	214	88	75	53	43	48
(†)	11.0	11.5	12.5	14.3	16.2	23.2	23.8	19.2	16.4	12.3	11.1	11.1

CAL YR 1982 TOTAL 46208 MEAN 127 MAX 1280 MIN 35 † 13.9
WTR YR 1983 TOTAL 58480 MEAN 160 MAX 1570 MIN 35 † 15.2

† Inflow from outside the basin, 2.4 mi upstream of station through plant of Ewing-Lawrence Sewerage Authority, in cubic feet per second.

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ

LOCATION.--Lat 40°08'15", long 74°36'02", Mercer County, Hydrologic Unit 02040201, on right bank upstream from highway bridge in Extonville, 0.5 mi upstream from Pleasant Run, and 0.7 mi downstream from Mercer-Monmouth County line.

DRAINAGE AREA.--81.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1940 to October 1951, October 1952 to current year.

REVISED RECORDS.--WDR NJ-79-2: 1971(M). WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.94 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated occasionally by lakes above station.

AVERAGE DISCHARGE.--42 years (water years 1941-51, 1953-83), 135 ft^3/s, 22.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,860 ft^3/s Sept. 1, 1978, gage height, 14.18 ft; minimum, 13.1 ft^3/s Feb. 14, 1942 (result of freezeup); minimum daily, 16 ft^3/s Aug. 30 to Sept. 3, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 22	1000	922	7.56	Apr. 17	1000	*1430	9.06
Mar. 28	2300	760	6.83	Apr. 25	1600	858	7.29
Apr. 4	0700	814	7.09	May 23	2300	756	6.81
Apr. 11	1200	1230	8.54				

Minimum discharge, 37 ft^3/s Aug. 9, gage height, 2.39 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	62	143	72	92	109	157	142	209	102	47	246
2	51	60	156	70	89	229	140	136	157	91	45	127
3	49	59	129	67	115	209	370	131	135	81	44	96
4	45	58	113	65	119	147	688	152	155	70	42	81
5	49	66	102	66	92	127	341	173	167	64	44	67
6	54	77	101	91	82	118	203	143	140	88	48	60
7	52	63	103	100	95	178	167	128	124	74	48	54
8	49	60	90	88	131	283	160	118	113	60	43	50
9	44	58	82	79	118	437	193	116	101	56	40	48
10	43	56	76	77	104	378	423	108	94	53	40	48
11	41	54	75	316	81	418	1150	101	88	50	48	47
12	40	54	79	337	91	410	573	98	84	48	129	47
13	46	134	84	161	121	439	290	95	80	47	121	105
14	48	214	95	117	95	235	198	97	75	44	76	86
15	46	123	76	125	93	169	169	97	69	43	58	61
16	43	104	135	175	101	141	473	150	64	44	51	54
17	40	88	260	134	118	128	1170	370	66	43	49	52
18	39	79	145	111	160	156	563	260	73	43	48	60
19	40	73	116	113	219	505	359	159	103	52	48	60
20	42	69	109	121	181	500	406	152	97	80	45	52
21	54	67	102	85	163	436	422	189	393	60	43	56
22	57	65	91	75	163	809	275	495	470	89	42	211
23	49	64	86	93	176	377	206	645	229	68	42	161
24	50	62	84	148	216	201	335	560	150	56	40	95
25	55	59	82	125	156	160	769	267	118	76	42	77
26	152	56	79	112	127	140	598	172	95	63	40	67
27	124	56	75	102	111	141	308	355	82	53	39	61
28	90	55	75	93	104	552	209	427	76	48	54	56
29	82	187	77	87	---	552	173	208	152	45	283	52
30	73	249	79	83	---	281	156	198	134	42	234	88
31	67	---	74	93	---	190	---	287	---	46	238	---
TOTAL	1766	2531	3173	3581	3513	9155	11644	6729	4093	1879	2211	2425
MEAN	57.0	84.4	102	116	125	295	388	217	136	60.6	71.3	80.8
MAX	152	249	260	337	219	809	1170	645	470	102	283	246
MIN	39	54	74	65	81	109	140	95	64	42	39	47
CFSM	.70	1.04	1.25	1.42	1.53	3.62	4.76	2.66	1.67	.74	.87	.99
IN.	.81	1.16	1.45	1.63	1.60	4.18	5.31	3.07	1.87	.86	1.01	1.11

CAL YR 1982 TOTAL 42987 MEAN 118 MAX 1040 MIN 39 CFSM 1.45 IN. 19.62
WTR YR 1983 TOTAL 52700 MEAN 144 MAX 1170 MIN 39 CFSM 1.77 IN. 24.05

01464500 CROSSWICKS CREEK AT EXTONVILLE, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to June 1970.
SUSPENDED-SEDIMENT DISCHARGE: February 1965 to June 1970.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB										
08...	1230	385	178	7.1	2.0	12.2	88	2.2	280	>2400
MAR										
14...	1200	508	108	6.8	6.5	10.2	83	1.8	70	790
JUN										
16...	1030	152	168	7.0	22.5	6.0	--	4.8	500	3100
JUL										
27...	1345	52	185	7.3	23.0	6.4	74	4.8	<2000	1400
AUG										
11...	1020	38	193	7.0	23.0	5.7	66	4.2	<200	200

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
08...	48	15	2.6	9.6	2.6	19	24	16	.20
MAR									
14...	38	9.8	3.3	4.8	2.1	9.0	22	8.6	.20
JUN									
16...	56	17	3.2	8.3	2.9	25	25	14	.30
JUL									
27...	55	17	3.1	11	3.3	28	24	16	.30
AUG									
11...	63	20	3.2	13	3.5	35	24	17	.40

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
08...	9.0	98	.020	.800	.910	1.5	2.3	1.00	3.2
MAR									
14...	7.3	71	.020	.700	.140	.97	1.7	.52	6.8
JUN									
16...	10	125	.120	1.60	.240	E1.1	--	.98	8.1
JUL									
27...	10	112	.130	1.60	.360	.98	2.6	.61	6.7
AUG									
11...	11	124	.140	1.80	.310	1.1	2.9	1.44	5.7

01464505 CROSSWICKS CREEK AT GROVEVILLE, NJ

LOCATION.--Lat 40°10'26", long 74°40'48", Mercer County, Hydrologic Unit 02040201, at bridge on U.S. Route 130 in Groveville, 0.3 mi upstream from Doctors Creek, and 0.6 mi southwest of Yardville.

DRAINAGE AREA.--98.2 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB									
01...	0845	184	6.8	3.0	13.0	96	1.3	46	49
APR									
05...	0830	104	--	11.0	10.4	94	2.1	20	79
MAY									
31...	0930	135	--	17.0	9.7	102	3.9	230	4900

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB									
01...	51	15	3.4	9.8	2.7	17	28	13	.20
APR									
05...	29	7.9	2.2	5.0	2.1	7.0	20	9.3	.10
MAY									
31...	44	12	3.4	6.6	2.4	15	25	12	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	10	103	.020	1.20	.580	1.8	3.0	.58	3.7
APR									
05...	5.6	67	.020	.700	.140	.75	1.5	.76	6.9
MAY									
31...	8.4	108	.030	1.30	.150	.95	2.3	1.20	8.9

01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'57", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond dam.

DRAINAGE AREA.--17.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
FEB										
08...	1000	29	165	7.2	1.5	13.6	97	1.0	5400	9200
MAR										
14...	1030	57	138	7.4	6.5	10.5	85	0.9	50	230
JUN										
13...	1430	16	162	7.2	24.5	7.7	--	2.4	1700	200
JUL										
28...	1345	12	160	7.4	24.5	6.9	82	1.6	50	200
AUG										
11...	1215	7.5	195	7.0	23.5	4.2	49	6.0	<200	<200

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
08...	51	12	5.0	5.8	3.1	17	30	16	.20
MAR									
14...	41	9.6	4.2	4.6	3.1	11	24	13	.20
JUN									
13...	63	14	6.7	7.2	2.6	24	23	14	.20
JUL									
28...	56	13	5.7	5.5	3.3	33	19	17	.30
AUG									
11...	62	15	6.0	9.0	4.3	32	16	17	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
08...	7.7	98	.020	1.30	.400	.62	1.9	.39	1.8
MAR									
14...	6.2	83	.020	1.50	.390	.82	2.3	.33	7.3
JUN									
13...	3.7	95	.040	.900	.890	1.1	2.0	1.20	--
JUL									
28...	9.2	101	.060	.500	.640	E1.6	--	.61	5.4
AUG									
11...	10	111	.190	.700	2.30	3.0	3.7	2.24	5.4

01464522 DOCTORS CREEK AT ROUTE 130 NEAR YARDVILLE, NJ

LOCATION.--Lat 40°10'31", long 74°40'33", Mercer County, Hydrologic Unit 02040201, at bridge on U.S. Route 130, 0.3 mi upstream from mouth, 0.4 mi northwest of Groveville, 0.6 mi southwest of Yardville, and 2.5 mi southwest of Haines Corner.

DRAINAGE AREA.--25.8 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
FEB										
01...	1015	205	6.7	3.0	13.6	100	.5	280	46	60
APR										
05...	1015	151	6.4	11.0	10.8	98	2.7	50	49	43
MAY										
31...	1030	157	--	17.5	9.2	98	3.9	1300	1100	54

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB									
01...	14	6.1	10	2.8	14	--	29	20	.20
APR									
05...	9.8	4.6	6.0	2.9	9.0	--	25	14	.20
MAY									
31...	12	5.9	6.7	2.5	18	<.5	25	15	.20

DATE	SILICA DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
01...	7.9	110	.020	2.00	.370	.51	2.5	.28	2.3
APR									
05...	6.3	79	.030	1.80	.120	.60	2.4	.52	3.6
MAY									
31...	6.5	130	.030	1.60	.050	.74	2.3	.44	6.4

01464522 DOCTORS CREEK AT ROUTE 130 NEAR YARDVILLE, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
31...	1030	150	2	<10	60	1	10	8

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
31...	1900	16	90	<.1	7	<1	30	<1

01464590 ASSISCUNK CREEK NEAR BURLINGTON, NJ

LOCATION.--Lat 40°04'19", long 74°47'57", Burlington County, Hydrologic Unit 02040201, at bridge on Old York Road, 1.4 mi southwest of Bustleton, 2.8 mi northeast of Deacons, 3.2 mi east of Burlington, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--37.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
JAN 31...	1300	190	--	3.0	13.2	98	1.5	23	170	58
APR 04...	1345	97	6.6	12.0	8.4	78	3.9	490	1600	32
MAY 31...	0800	149	--	17.5	7.7	82	3.9	1300	2300	53

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 31...	14	5.5	6.3	3.5	7.0	--	37	17	.20
APR 04...	7.6	3.2	3.4	3.3	9.0	--	23	6.6	.20
MAY 31...	12	5.5	5.0	3.2	15	<.5	31	12	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 31...	15	117	<.010	1.30	.250	.58	1.9	.25	1.8
APR 04...	7.0	72	.030	.600	E.090	1.1	1.7	.79	7.0
MAY 31...	12	127	.020	1.00	.130	.80	1.8	.67	9.0

01464590 ASSISCUNK CREEK NEAR BURLINGTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
31...	0800	130	1	<10	70	1	10	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
31...	3700	12	120	.1	7	<1	30	<1

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi downstream from Burlington-Bristol Bridge, 1.4 mi downstream from Assiscunk Creek, and at mile 117.54.

TIDE ELEVATION DATA

DRAINAGE AREA.--7,160 mi².

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is -12.90 ft National Geodetic Vertical Datum of 1929. Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines. Missing or doubtful record on Dec. 26-31, Jan. 1-5, Feb. 1-Apr. 4, July 19-31, Sept. 11-31.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.74 ft Oct. 25, 1980; minimum, -6.60 ft Feb. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft Aug. 20, 1955, from high-water mark at site 1.4 mi upstream; minimum, -9.1 ft Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.33 ft Apr. 17; minimum recorded, -3.72 ft Jan. 20.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.85	6.34	6.40	6.63	--	--	7.33	6.85	6.63	6.03	6.42	6.11
high tide	Date	10	4	19	29	--	--	17	27	11	11	11	7
Minimum	Elevation	-3.40	-3.65	-3.64	-3.72	--	--	-2.07	-3.24	-3.19	-3.31	-2.75	--
low tide	Date	17	13	9	20	--	--	7	9	24	9	2,3	--
Mean high tide		5.18	4.64	4.80	4.49	--	--	6.01	5.51	5.45	--	5.13	--
Mean water level		1.71	1.14	1.37	1.17	--	--	2.63	1.86	1.70	--	1.61	--
Mean low tide		-2.05	-2.56	-2.33	-2.50	--	--	-0.92	-1.97	-2.31	--	-2.35	--

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ

LOCATION.--Lat 39°56'22", long 74°45'50", Burlington County, Hydrologic Unit 02040202, at bridge on Lumberton-Vincentown Road at Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch.

DRAINAGE AREA.--64.5 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1925, 1959-62, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
FEB 02...	1230	64	98	5.8	7.0	11.7	97	--	49	15
MAR 17...	1000	112	73	4.9	9.0	10.1	85	1.1	79	220
JUN 06...	0900	102	59	--	20.5	6.6	74	6.9	40	--
JUL 26...	1315	31	86	6.5	24.0	6.3	75	1.1	330	1100
AUG 04...	0945	16	85	6.4	25.5	5.7	70	1.1	50	110
SEP 20...	0845	22	--	6.3	21.0	7.2	81	.9	14	460

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 02...	25	6.9	1.8	4.3	1.4	3.0	--	19	8.0	.20
MAR 17...	19	5.0	1.5	3.3	1.0	1.0	--	21	6.2	<.10
JUN 06...	17	5.0	1.1	3.1	1.0	4.0	<.5	14	6.4	.10
JUL 26...	22	1.4	5.0	1.7	6.0	6.0	--	18	7.6	.10
AUG 04...	24	7.3	1.4	5.3	1.6	7.0	--	18	7.8	<.10
SEP 20...	21	5.9	1.6	4.5	1.9	8.0	<.5	18	7.1	.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	5.5	63	<.010	.300	.130	.54	.84	.15	5.3
MAR 17...	4.0	64	<.010	.300	<.050	.50	.80	.12	11
JUN 06...	5.2	72	<.010	.300	.090	.95	1.3	.98	15
JUL 26...	4.1	72	.020	.400	.100	.84	1.1	.80	11
AUG 04...	4.7	59	.020	.600	.120	.87	1.5	--	13
SEP 20...	4.8	61	<.010	.400	.110	.72	1.1	.52	2.8

01465850 SOUTH BRANCH RANCOCAS CREEK AT VINCENTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)
JUN 06...	0900	--	--	--	340	2	--	<10	140	<1	--
SEP 20...	0845	820	.4	6.1	40	2	<1	<10	30	<1	2

DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
JUN 06...	20	--	--	5	--	2100	--	1	--	20	--
SEP 20...	10	3	10	7	0	1900	1300	4	10	50	6

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 06...	.3	--	6	--	<1	--	30	--	2	--	--
SEP 20...	<.1	<.01	1	<10	<1	<1	60	20	3	<1	<1.0

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 06...	--	--	--	--	--	--	--	--	--	--	--
SEP 20...	<.1	<1.0	2.3	.2	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 06...	--	--	--	--	--	--	--	--	--	--	--
SEP 20...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01465970 NORTH BRANCH RANCOCAS CREEK AT BROWNS MILLS, NJ

LOCATION.--Lat 39°58'04", long 74°34'48", Burlington County, Hydrologic Unit 02040202, at bridge on Lakehurst Road at outflow of Mirror Lake in Browns Mills, 1.5 mi north of Browns Mills Junction, and 2.0 mi northwest of outflow of Country Lake.

DRAINAGE AREA.--27.4 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN										
24...	1030	36	47	4.7	3.0	12.7	94	.6	<2	6
APR										
04...	1130	160	49	4.4	10.0	10.9	96	3.0	<20	110
MAY										
24...	1030	58	40	--	18.0	8.4	90	1.8	240	350
JUL										
26...	1100	26	45	5.7	25.0	6.2	75	1.1	5	48
AUG										
11...	1330	14	54	6.0	26.0	5.9	73	1.6	5	8
SEP										
20...	1115	21	41	5.9	22.0	8.0	92	--	79	350

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN										
24...	10	2.2	1.1	2.9	.80	1.0	--	12	4.9	<.10
APR										
04...	8	2.0	.84	2.4	.60	<1.0	--	13	4.0	<.10
MAY										
24...	11	2.7	1.1	2.2	.80	2.0	--	10	3.2	<.10
JUL										
26...	9	2.1	.90	3.3	.80	3.0	--	10	4.8	<.10
AUG										
11...	11	2.5	1.1	3.4	.90	4.0	--	9.1	5.4	<.10
SEP										
20...	9	2.1	1.0	2.7	.90	6.0	<.5	10	4.7	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
24...	5.1	36	<.010	<.100	.090	.20	--	.12	4.8
APR									
04...	2.6	38	<.010	.060	E.050	.25	.31	.09	7.6
MAY									
24...	3.1	41	<.010	.200	.100	E.50	--	.24	--
JUL									
26...	4.2	30	.020	.100	.150	.80	.90	.25	14
AUG									
11...	4.3	51	.010	.100	.150	.94	1.0	.25	11
SEP									
20...	3.5	40	<.010	.100	<.050	.48	.58	.21	2.8

01465970 NORTH BRANCH RANCOCAS CREEK AT BROWNS MILLS, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
SEP								
20...	1115	30	1	<10	20	<1	10	16

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
SEP								
20...	3100	15	50	<.1	2	<1	70	5

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ
(Hydrologic bench-mark station)

LOCATION.--Lat 39°53'05", long 74°30'20", Burlington County, Hydrologic Unit 02040202, on right bank in Lebanon State Forest, 25 ft upstream from Butterworth Road Bridge, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest".

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft National Geodetic Vertical Datum of 1929 (levels from New Jersey Geological Survey bench mark).

REMARKS.--Water-discharge records good. Gage-height record is collected above concrete control and discharge record, which includes leakage around control, is at site 785 ft downstream.

AVERAGE DISCHARGE.--30 years, 2.29 ft^3/s, 13.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35 ft^3/s Aug. 25, 1958, gage height, 2.33 ft; minimum daily, 0.8 ft^3/s July 6, 19, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7.0 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 11	0645	9.7	1.82	May 22	1030	9.4	1.81
Apr. 17	0500	*10.0	1.83				

Minimum discharge, 0.93 ft^3/s many days in October and November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.99	1.4	1.2	1.4	1.6	2.9	3.6	3.7	3.0	1.7	1.4
2	1.1	.99	1.4	1.2	1.4	1.9	2.6	3.5	3.6	2.9	1.7	1.4
3	1.1	.98	1.4	1.2	1.4	1.7	4.1	3.4	3.4	2.8	1.6	1.4
4	1.1	.99	1.3	1.2	1.4	1.7	5.2	4.2	3.7	2.6	1.6	1.3
5	1.0	1.1	1.3	1.2	1.4	1.7	4.6	3.8	3.8	2.6	1.6	1.4
6	1.0	.99	1.4	1.4	1.4	1.6	3.9	3.5	3.4	2.7	1.6	1.4
7	1.0	.98	1.4	1.3	1.6	2.3	3.3	3.3	3.3	2.6	1.6	1.4
8	1.0	.98	1.3	1.2	1.5	2.4	3.1	3.2	3.3	2.5	1.6	1.3
9	1.0	.97	1.3	1.2	1.5	2.9	5.2	3.1	3.1	2.4	1.6	1.3
10	.99	.96	1.2	1.3	1.4	2.9	7.7	3.0	2.9	2.3	1.6	1.3
11	.99	.98	1.2	1.7	1.4	3.1	8.0	3.0	2.9	2.3	1.7	1.2
12	1.0	.98	1.2	1.5	1.4	3.5	7.5	3.0	2.9	2.2	1.9	1.3
13	1.0	1.4	1.2	1.4	1.4	2.9	5.2	2.9	2.9	2.2	1.9	1.5
14	1.1	1.2	1.2	1.4	1.4	2.6	4.6	2.9	2.8	2.1	1.8	1.4
15	.99	1.2	1.2	1.5	1.4	2.4	4.1	3.0	2.7	2.0	1.7	1.3
16	.99	1.2	1.6	1.4	1.4	2.2	5.8	4.3	2.7	2.0	1.6	1.3
17	.97	1.1	1.6	1.4	1.4	2.1	8.4	4.8	2.8	1.8	1.6	1.4
18	.98	1.1	1.5	1.4	1.5	2.7	5.6	4.0	3.3	1.8	1.6	1.4
19	.98	1.1	1.4	1.3	1.5	3.6	5.0	3.5	4.0	1.8	1.5	1.3
20	.97	1.1	1.4	1.3	1.5	4.5	5.2	3.5	4.3	2.0	1.5	1.3
21	1.0	1.1	1.3	1.3	1.5	5.1	4.9	4.3	5.6	2.0	1.5	1.4
22	.98	1.1	1.3	1.3	1.7	4.2	4.4	8.3	4.7	2.6	1.5	1.9
23	.97	1.1	1.3	1.4	1.9	3.5	4.1	7.9	3.9	2.3	1.5	1.6
24	.97	1.1	1.3	1.4	2.0	3.1	5.1	6.5	3.5	2.2	1.4	1.5
25	1.2	1.0	1.3	1.4	1.8	2.6	5.7	5.0	3.2	2.1	1.4	1.4
26	1.4	1.0	1.3	1.4	1.8	2.4	4.8	4.4	3.0	2.0	1.4	1.4
27	1.2	1.0	1.3	1.4	1.7	2.9	4.2	4.4	2.9	1.9	1.4	1.4
28	1.1	1.1	1.3	1.4	1.6	5.1	3.9	4.1	3.0	1.9	1.8	1.4
29	1.1	1.7	1.3	1.4	---	4.5	3.8	4.1	4.1	1.8	1.6	1.3
30	1.1	1.4	1.3	1.4	---	3.8	3.7	4.0	3.4	1.8	1.5	1.6
31	1.0	---	1.3	1.4	---	3.3	---	3.9	---	1.8	1.5	---
TOTAL	32.38	32.89	41.2	41.9	42.7	90.8	146.6	126.4	102.8	69.0	49.5	41.9
MEAN	1.04	1.10	1.33	1.35	1.52	2.93	4.89	4.08	3.43	2.23	1.60	1.40
MAX	1.4	1.7	1.6	1.7	2.0	5.1	8.4	8.3	5.6	3.0	1.9	1.9
MIN	.97	.96	1.2	1.2	1.4	1.6	2.6	2.9	2.7	1.8	1.4	1.2
CFSM	.44	.47	.57	.57	.65	1.25	2.08	1.74	1.46	.95	.68	.60
IN.	.51	.52	.65	.66	.68	1.44	2.32	2.00	1.63	1.09	.78	.66

CAL YR 1982 TOTAL 585.33 MEAN 1.60 MAX 5.2 MIN .96 CFSM .68 IN. 9.27
WTR YR 1983 TOTAL 818.07 MEAN 2.24 MAX 8.4 MIN .96 CFSM .95 IN. 12.95

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960, water-quality monitor since October 1968.

REMARKS.--Interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORDS.--
SPECIFIC CONDUCTANCE: Maximum, 182 micromhos June 16, 1969; minimum, 19 micromhos Aug. 25, 1979.
WATER TEMEPRATURES: Maximum, 22.0°C Aug. 1, 1970; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 90 micromhos March 20; minimum, 26 micromhos on several days in October.
WATER TEMPERATURES: Maximum, 18.0°C July 4, 5, and 6; minimum, 4.0°C Feb. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
NOV											
16...	1100	1.1	38	4.4	9.0	4.5	38	1.0	K4	--	3
FEB											
23...	1110	2.0	51	4.2	6.0	7.8	63	--	<4	<4	5
JUN											
23...	1100	4.0	--	4.0	16.0	--	--	--	18	290	3
AUG											
17...	0950	1.6	34	4.5	14.0	2.4	23	.3	K8	84	2

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV										
16...	.52	.48	2.1	.40	<1.0	7.0	3.3	<.10	4.6	22
FEB										
23...	.91	.74	2.0	.50	<1.0	11	3.6	<.10	4.1	24
JUN										
23...	.57	.29	1.8	<.10	<1.0	14	3.2	<.10	2.7	32
AUG										
17...	.31	.34	1.7	.10	<1.0	5.9	3.6	<.10	4.2	22

DATE	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
NOV										
16...	4	.01	57	<.100	.010	<.10	.030	.030	.030	--
FEB										
23...	1	.00	100	<.100	<.010	.20	<.010	<.010	<.010	6.0
JUN										
23...	3	.03	40	<.100	<.010	.30	.020	.020	<.010	--
AUG										
17...	1	.00	67	<.100	<.010	.10	<.010	--	<.010	3.3

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
NOV										
16...	1100	120	<1	16	<1	<1	<1	<3	5	54
JUN										
23...	1100	340	1	30	<0	3	3	<3	2	320

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV										
16...	7	<4	10	<.1	<10	<1	<1	<1	7	<6
JUN										
23...	4	<4	11	<.1	<10	2	<1	<1	7	<6

DATE	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
NOV										
16...	16	2.2	<.4	1.5	1.9	<.4	1.9	<.4	.21	1.6
JUN										
23...	22	--	--	--	--	--	--	--	--	--

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	28	26	27	32	30	31	47	45	46	36	35	36
2	28	27	27	31	30	30	47	46	47	36	35	35
3	28	27	27	31	29	30	46	44	45	36	35	35
4	27	26	27	30	29	30	44	42	43	36	34	35
5	27	27	27	32	30	31	43	41	42	35	34	35
6	27	26	27	32	29	31	42	40	41	36	35	36
7	27	26	27	31	30	31	41	40	41	36	35	36
8	27	26	27	31	30	31	41	39	40	36	35	36
9	27	26	26	31	30	31	40	38	39	36	35	35
10	27	26	27	31	30	30	39	37	38	42	35	36
11	27	26	27	31	30	30	38	36	37	50	45	48
12	27	26	27	31	29	30	37	36	36	51	49	50
13	28	27	28	48	30	42	37	35	36	50	47	49
14	28	27	28	46	40	43	36	35	35	48	45	46
15	28	27	28	40	39	39	35	34	35	45	44	44
16	28	27	28	39	38	39	50	35	43	45	43	44
17	28	27	28	39	38	38	51	49	50	44	42	43
18	28	27	28	38	37	37	52	50	51	43	42	---
19	29	27	28	37	36	37	50	47	49	---	---	---
20	28	27	28	36	35	35	48	45	46	---	---	---
21	29	27	28	35	34	35	46	44	45	---	---	---
22	29	28	28	35	33	34	44	42	43	---	---	---
23	29	28	28	34	33	33	42	41	41	---	---	---
24	29	27	28	34	32	33	41	40	40	---	---	---
25	39	27	31	33	32	33	40	39	39	---	---	---
26	42	39	41	33	31	32	39	38	38	40	38	---
27	39	35	36	32	31	32	38	37	38	40	39	39
28	35	33	34	33	31	32	38	36	37	39	38	39
29	33	32	33	52	33	47	37	36	37	39	38	38
30	33	31	32	49	45	46	37	36	37	39	37	38
31	32	31	31	---	---	---	37	36	36	38	37	38
MONTH	42	26	29	52	29	34	52	34	41	51	34	40

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	38	37	37	58	51	53	77	71	73	70	69	69
2	36	35	36	64	58	61	73	70	71	70	68	69
3	37	36	36	62	60	61	83	70	77	70	67	69
4	37	36	37	64	60	61	83	80	82	75	68	71
5	37	36	37	64	62	63	80	75	78	76	69	71
6	37	36	37	63	60	61	77	73	74	70	68	69
7	42	36	40	76	60	70	73	71	72	71	67	68
8	42	41	42	85	74	78	74	70	71	70	66	68
9	42	41	42	89	85	87	75	71	72	69	66	67
10	44	40	42	89	86	88	77	71	74	69	66	67
11	41	39	40	88	84	85	80	76	78	69	66	67
12	40	38	39	87	85	86	76	72	74	70	67	68
13	39	37	38	87	83	85	73	69	71	67	65	67
14	38	37	37	84	78	81	70	68	69	68	66	66
15	37	36	37	79	74	76	69	67	68	69	65	66
16	36	35	35	73	69	71	76	68	73	75	67	70
17	37	35	36	70	66	68	79	75	77	75	72	73
18	38	36	37	77	66	70	76	72	74	74	71	73
19	40	38	39	88	78	82	73	71	72	74	69	71
20	40	39	40	90	84	86	74	72	73	70	68	69
21	42	40	40	84	81	83	74	72	73	72	67	70
22	54	41	47	83	80	81	73	71	72	76	73	75
23	60	54	57	81	77	79	72	70	71	75	73	74
24	63	60	62	77	74	76	74	70	72	74	70	71
25	63	60	61	75	71	73	76	73	75	70	67	69
26	61	58	59	71	69	70	75	73	74	68	66	67
27	58	55	56	74	68	69	74	71	72	68	66	67
28	55	53	54	81	75	78	72	70	71	68	65	67
29	---	---	---	82	79	80	72	70	70	68	66	67
30	---	---	---	79	75	77	71	69	70	69	66	67
31	---	---	---	76	73	74	---	---	---	67	66	66
MONTH	63	35	43	90	51	75	83	67	73	76	65	69

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	69	66	67	63	60	61	35	33	34	36	33	35
2	68	67	67	59	57	58	35	34	34	34	32	33
3	68	66	67	58	56	57	34	33	34	33	31	32
4	69	67	68	56	55	55	34	33	33	32	31	32
5	70	68	69	55	54	55	33	32	33	31	30	31
6	69	67	68	55	54	54	33	32	33	31	30	31
7	68	66	67	54	52	53	33	32	32	31	30	30
8	67	66	66	52	50	51	32	31	32	31	29	30
9	66	64	65	51	49	50	32	31	31	31	29	30
10	66	64	65	50	48	49	32	31	31	30	29	29
11	65	63	64	49	47	48	36	30	32	30	29	29
12	65	63	64	48	47	48	40	36	38	35	29	30
13	64	62	63	47	45	46	41	39	40	34	31	33
14	63	62	63	46	44	45	40	37	38	32	30	31
15	63	61	62	45	43	44	37	35	36	31	30	30
16	62	60	61	44	43	43	35	34	34	30	29	30
17	64	60	62	43	42	43	34	33	33	31	29	30
18	77	63	68	41	40	40	34	32	33	30	29	29
19	78	72	75	41	40	40	33	32	32	30	29	29
20	78	69	73	40	39	40	32	31	32	30	29	29
21	78	74	76	52	38	41	32	31	31	45	28	30
22	75	72	73	53	50	51	32	30	31	51	43	47
23	73	69	71	50	45	47	31	30	31	43	40	42
24	69	66	68	44	43	44	31	30	30	40	37	39
25	67	64	65	43	41	42	31	30	30	37	34	36
26	63	61	62	42	39	40	31	29	30	35	33	34
27	61	60	61	40	38	39	31	29	30	34	32	33
28	63	59	60	38	37	38	47	29	41	33	31	32
29	65	63	64	37	36	37	40	38	39	32	31	31
30	64	61	62	35	34	35	39	36	38	37	31	35
31	---	---	---	34	33	34	37	35	36	---	---	---
MONTH	78	59	66	63	33	46	47	29	34	51	28	32
YEAR	90	26	49									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	13.0	13.0	11.5	11.0	11.5	9.5	9.0	9.5	9.0	8.0	8.5
2	13.5	12.5	13.0	12.0	11.0	---	10.0	9.5	10.0	8.5	8.0	8.5
3	13.0	12.0	12.5	12.5	12.0	---	10.5	10.0	10.0	8.5	7.5	8.0
4	13.5	12.5	13.0	13.0	12.0	12.5	11.0	10.5	10.5	7.5	6.5	7.0
5	13.5	12.5	12.5	13.0	11.0	12.0	11.5	11.0	11.0	8.0	7.0	8.0
6	13.5	12.5	13.0	11.0	10.5	10.5	11.5	11.0	11.5	8.5	8.0	8.0
7	13.5	12.5	13.0	10.5	10.0	10.5	11.0	10.0	10.5	8.5	7.5	8.0
8	13.5	13.0	13.0	11.0	10.0	10.5	10.0	9.5	10.0	8.5	8.0	8.0
9	13.5	13.0	13.0	11.0	10.0	10.5	9.5	8.5	9.5	8.5	8.0	8.0
10	13.0	12.0	12.5	11.0	10.0	10.5	8.5	8.0	8.5	9.5	8.5	8.5
11	12.5	11.5	12.0	10.5	9.5	10.0	8.5	8.5	8.5	9.0	8.5	9.0
12	12.0	11.5	12.0	11.0	10.0	10.5	8.5	6.5	7.5	8.5	8.0	8.5
13	12.0	11.5	12.0	10.0	7.5	8.5	7.0	6.5	6.5	8.0	7.0	7.5
14	12.5	11.5	12.0	10.5	9.5	10.0	7.0	6.0	6.5	7.5	6.5	7.0
15	12.5	12.0	12.0	10.0	9.5	10.0	8.0	7.0	7.5	7.5	7.0	7.0
16	12.0	11.0	11.5	9.5	8.5	9.0	8.5	8.0	8.0	7.0	6.0	6.5
17	11.5	10.0	---	9.0	8.5	8.5	8.0	7.5	8.0	6.5	6.0	6.5
18	---	---	---	9.5	8.5	9.0	7.5	7.0	7.0	---	---	---
19	11.0	9.5	---	9.5	9.5	9.5	7.5	7.0	7.0	---	---	---
20	11.5	10.5	---	10.0	9.5	10.0	7.5	7.0	7.5	---	---	---
21	---	---	---	10.5	10.0	10.5	7.5	7.5	7.5	---	---	---
22	---	---	---	11.0	10.5	10.5	7.5	7.0	7.5	---	---	---
23	10.0	9.0	9.5	11.0	10.5	11.0	8.0	7.5	7.5	---	---	---
24	10.5	9.5	10.0	11.0	10.0	10.5	8.5	8.0	8.0	---	---	---
25	10.5	10.0	10.0	10.0	9.0	9.5	9.5	8.5	9.0	---	---	---
26	10.5	9.5	10.0	10.0	9.0	9.5	10.0	9.0	9.5	6.5	6.0	---
27	10.5	9.5	10.0	9.5	8.5	9.0	9.5	9.0	9.0	6.5	6.0	6.5
28	11.0	9.5	10.0	9.0	8.0	8.5	10.0	9.5	10.0	6.5	6.0	6.5
29	11.0	9.5	10.5	9.0	8.5	9.0	10.5	9.5	10.0	6.5	6.0	6.5
30	11.0	10.5	10.5	9.0	9.0	9.0	9.5	9.0	9.0	7.0	6.0	6.5
31	11.5	10.5	11.0	---	---	---	9.0	8.5	8.5	7.0	6.5	6.5
MONTH	13.5	9.0	11.5	13.0	7.5	10.0	11.5	6.0	8.5	9.5	6.0	7.5

01466500 MCDONALDS BRANCH IN LEBANON STATE FOREST, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.5	6.5	5.5	5.0	5.5	6.0	5.5	6.0	14.0	13.0	13.5
2	8.0	6.5	7.0	6.0	5.5	5.5	6.0	5.5	6.0	14.5	14.0	14.0
3	8.0	8.0	8.0	6.0	5.5	6.0	7.5	6.5	7.0	15.5	14.5	15.0
4	8.0	7.0	7.5	6.5	5.5	6.0	8.0	7.5	8.0	15.0	14.0	15.0
5	7.0	6.5	6.5	6.5	6.0	6.0	8.5	7.5	8.0	14.0	13.0	13.5
6	6.5	6.0	6.5	6.5	6.0	6.5	8.5	8.0	8.0	13.0	12.5	12.5
7	6.5	6.0	6.5	6.5	6.0	6.5	9.0	8.5	8.5	12.5	12.0	12.5
8	6.5	6.0	6.0	6.0	5.5	6.0	9.5	9.0	9.0	13.0	12.0	12.5
9	6.0	5.5	6.0	5.5	5.5	5.5	9.5	9.5	9.5	13.0	11.5	12.5
10	6.0	5.5	5.5	5.5	5.5	5.5	9.5	9.0	9.0	11.5	10.5	11.0
11	5.5	4.0	5.0	5.5	5.5	5.5	9.0	9.0	9.0	11.0	10.5	10.5
12	5.5	4.5	5.0	5.5	5.0	5.0	9.0	8.0	8.5	10.5	10.0	10.5
13	5.5	4.5	5.0	5.0	4.5	5.0	8.5	8.0	8.5	11.0	10.0	10.5
14	6.0	5.0	5.5	5.5	5.0	5.5	8.0	7.5	8.0	11.5	10.5	11.0
15	6.5	5.5	6.0	6.5	5.5	6.0	9.5	8.5	9.0	12.5	11.5	12.0
16	6.5	6.0	6.0	7.0	6.0	6.5	9.5	8.0	9.0	12.5	11.5	12.0
17	6.5	6.0	6.5	6.5	6.5	6.5	8.5	7.0	8.0	11.0	10.5	11.0
18	7.0	6.0	6.5	7.0	6.5	7.0	8.0	7.5	7.5	11.0	10.0	10.5
19	6.5	6.0	6.5	8.0	7.0	7.5	7.5	5.5	6.5	11.0	10.5	11.0
20	6.5	6.0	6.0	8.0	8.0	8.0	5.5	5.0	5.5	12.0	11.0	11.5
21	6.5	5.5	6.0	8.5	8.0	8.0	6.5	5.0	6.0	13.5	12.0	12.5
22	6.5	6.0	6.5	8.5	7.0	7.5	7.5	6.0	7.0	14.5	13.5	14.0
23	6.0	5.5	5.5	6.5	6.0	6.0	8.5	7.0	7.5	15.5	14.5	15.0
24	5.5	5.0	5.0	5.5	5.0	5.5	9.0	8.5	8.5	15.5	15.0	15.5
25	5.0	4.5	5.0	5.5	5.0	5.0	9.5	8.0	8.5	15.0	14.0	14.5
26	5.0	4.5	4.5	5.5	4.5	5.0	9.0	8.0	8.5	14.5	14.0	14.0
27	5.0	4.5	4.5	5.5	5.0	5.0	10.0	8.5	9.0	14.0	14.0	14.0
28	5.0	4.5	5.0	6.0	5.5	6.0	11.5	10.0	10.5	13.5	13.0	13.5
29	---	---	---	6.0	5.5	6.0	12.5	11.5	12.0	13.5	13.5	13.5
30	---	---	---	5.5	5.0	5.0	13.5	12.5	13.0	14.5	13.5	14.0
31	---	---	---	5.5	5.0	5.0	---	---	---	14.5	14.0	14.5
MONTH	8.0	4.0	6.0	8.5	4.5	6.0	13.5	5.0	8.5	15.5	10.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	14.0	14.0	16.5	16.0	16.0	16.5	15.5	16.0	15.5	14.5	15.0
2	14.0	13.5	14.0	17.0	16.5	16.5	16.5	15.5	16.0	15.0	14.5	14.5
3	14.0	13.5	14.0	17.5	17.0	17.5	16.0	15.5	15.5	15.0	14.0	14.5
4	14.5	14.0	14.5	18.0	17.5	17.5	16.0	15.5	15.5	15.0	14.0	14.5
5	15.5	14.5	15.0	18.0	17.5	17.5	16.0	15.5	15.5	15.0	14.0	14.5
6	15.5	15.0	15.5	18.0	17.5	17.5	15.5	15.0	15.5	15.5	14.0	14.5
7	16.0	15.5	16.0	17.5	17.0	17.0	16.0	15.0	15.5	15.5	14.5	14.5
8	16.0	15.5	15.5	17.0	16.5	16.5	15.5	15.0	15.5	15.0	14.0	14.5
9	15.5	14.5	15.0	16.5	16.5	16.5	15.5	15.0	15.5	14.5	13.5	14.0
10	14.5	14.0	14.5	16.5	16.0	16.0	15.5	15.0	15.0	15.0	13.5	14.0
11	15.0	14.0	14.5	16.0	15.5	15.5	15.5	14.5	15.0	15.0	14.0	14.0
12	15.5	14.5	15.0	16.0	15.5	15.5	16.0	15.5	15.5	14.5	14.0	14.0
13	16.0	15.5	15.5	16.5	15.5	16.0	15.5	15.0	15.5	14.5	14.0	14.5
14	16.5	15.5	16.0	16.5	15.5	16.0	15.5	14.5	15.0	14.0	13.5	14.0
15	16.5	15.5	16.0	16.5	15.5	16.0	15.0	14.0	14.5	14.0	13.0	13.5
16	16.5	16.0	16.5	17.0	16.0	16.5	15.0	14.0	14.5	13.5	12.5	13.0
17	16.5	16.0	16.5	17.0	16.0	16.5	14.5	14.0	14.5	13.5	12.5	13.0
18	17.0	16.5	16.5	17.0	16.0	16.5	14.5	14.0	14.5	14.0	13.0	13.0
19	17.5	17.0	17.5	16.5	16.5	16.5	15.0	14.5	14.5	14.0	13.0	13.5
20	17.5	17.0	17.5	16.5	16.0	16.5	15.5	14.5	14.5	14.5	13.0	13.5
21	17.5	17.0	17.5	17.5	16.0	16.5	15.0	14.0	14.5	15.0	13.5	14.0
22	17.5	17.0	17.0	17.5	17.0	17.5	15.0	14.0	14.5	15.0	13.5	14.5
23	17.0	16.0	16.5	17.0	16.5	17.0	14.5	14.0	14.5	13.5	12.5	13.0
24	17.0	16.5	16.5	17.0	16.5	16.5	14.5	14.0	14.0	13.0	12.0	12.5
25	17.0	16.5	17.0	16.5	16.0	16.5	14.5	13.5	14.0	13.0	11.5	12.0
26	16.5	16.0	16.0	16.5	16.0	16.0	14.5	13.5	14.0	12.5	11.5	12.0
27	17.0	16.0	16.5	16.0	15.5	16.0	14.5	13.5	14.0	12.5	11.5	12.0
28	17.0	16.5	17.0	16.5	15.5	16.0	15.5	14.0	15.0	12.5	12.0	12.0
29	17.5	16.5	17.0	16.5	15.5	16.0	15.5	15.0	15.0	12.5	11.5	12.0
30	16.5	16.0	16.0	16.5	16.0	16.0	15.5	15.0	15.0	12.5	12.0	12.5
31	---	---	---	16.0	15.5	16.0	15.0	15.0	15.0	---	---	---
MONTH	17.5	13.5	16.0	18.0	15.5	16.5	16.5	13.5	15.0	15.5	11.5	13.5
YEAR	18.0	4.0	11.0									

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ

LOCATION.--Lat 39°58'10", long 74°41'05", Burlington County, Hydrologic Unit 02040202, on right bank at downstream side of bridge on Hanover Street at Pemberton, 12 mi upstream from confluence with South Branch Rancocas Creek.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to current year.

REVISED RECORDS.--WSP 1302: 1922-23. WSP 1382: 1933. WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder above concrete dams. Datum of gage is 31.19 ft National Geodetic Vertical Datum of 1929. Prior to June 9, 1923, nonrecording gage and June 9, 1923 to Aug. 9, 1951, water-stage recorder at site 600 ft downstream at datum 6.54 ft lower.

REMARKS.--Water-discharge records good. Flow regulated occasionally by operation of gate in dam and by ponds above station.

AVERAGE DISCHARGE.--62 years, 171 ft³/s, 19.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,730 ft³/s Aug. 31, 1939, gage height, 10.77 ft, from high-water mark, site and datum then in use; minimum daily, 9.0 ft³/s Sept. 29, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 22	0230	614	2.45	Apr. 17	1145	*775	2.68
Apr. 11	1415	741	2.63	Apr. 25	1245	600	2.43

Minimum discharge, 47 ft³/s Oct. 5, 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	75	171	99	105	128	267	287	302	242	75	104
2	60	67	169	93	104	154	248	270	266	195	72	86
3	57	67	154	95	111	164	376	242	228	170	69	75
4	50	65	141	122	118	160	494	259	235	154	67	69
5	48	81	127	123	115	151	508	274	295	146	65	66
6	47	89	120	128	110	143	419	270	254	142	66	63
7	48	79	121	107	116	174	331	246	243	129	66	60
8	53	72	119	103	132	243	329	213	206	117	63	57
9	53	74	104	105	141	323	348	178	186	109	58	55
10	50	72	92	109	140	400	507	161	169	101	58	53
11	49	67	88	179	133	408	717	153	159	94	65	52
12	49	66	87	238	132	437	644	158	147	93	96	60
13	50	122	88	241	137	416	513	151	130	88	112	76
14	52	145	84	223	133	361	462	145	122	85	96	72
15	52	141	81	169	127	292	413	149	115	82	75	67
16	54	123	118	162	130	242	583	221	108	79	71	62
17	52	109	177	159	184	218	761	366	109	74	66	62
18	52	97	191	156	208	234	683	413	107	70	64	78
19	55	89	194	137	190	397	575	341	124	77	64	75
20	66	84	171	119	178	439	545	320	214	73	63	68
21	71	80	139	108	173	494	518	345	403	81	61	69
22	65	80	112	103	164	580	463	447	503	124	59	130
23	60	80	103	105	137	441	407	536	473	113	58	137
24	58	77	101	123	136	361	480	535	367	102	57	111
25	69	74	100	171	136	297	585	486	288	104	57	86
26	99	71	95	156	133	250	550	358	229	97	54	74
27	102	70	95	144	131	260	453	420	191	89	52	72
28	98	70	92	135	129	476	378	398	176	83	84	73
29	79	136	93	115	---	460	319	342	302	78	79	69
30	73	161	101	106	---	401	301	328	295	73	72	80
31	73	---	101	105	---	348	---	315	---	75	100	---
TOTAL	1906	2683	3729	4238	3883	9852	14177	9327	6946	3339	2164	2261
MEAN	61.5	89.4	120	137	139	318	473	301	232	108	69.8	75.4
MAX	102	161	194	241	208	580	761	536	503	242	112	137
MIN	47	65	81	93	104	128	248	145	107	70	52	52
CFSM	.52	.76	1.02	1.16	1.18	2.69	4.01	2.55	1.97	.92	.59	.64
IN.	.60	.85	1.18	1.34	1.22	3.11	4.47	2.94	2.19	1.05	.68	.71

CAL YR 1982 TOTAL 47269 MEAN 130 MAX 463 MIN 47 CFSM 1.10 IN. 14.90
WTR YR 1983 TOTAL 64505 MEAN 177 MAX 761 MIN 47 CFSM 1.50 IN. 20.34

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-24, 1958, 1962-69, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN										
24...	1230	122	59	4.6	4.0	11.6	88	.5	11	270
APR										
06...	0915	433	51	--	11.0	9.9	90	.6	23	21
MAY										
24...	0830	531	47	--	18.0	7.2	77	1.6	280	200
JUL										
11...	1230	54	40	--	23.0	7.5	88	1.3	130	200
AUG										
04...	0830	67	45	5.4	23.0	6.7	78	.7	80	130
SEP										
21...	0900	64	45	5.4	20.0	7.8	85	.9	40	80

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN										
24...	11	2.4	1.1	3.3	.90	1.0	--	12	5.7	<.10
APR										
06...	8	1.7	.80	2.3	.50	<1.0	--	13	4.7	<.10
MAY										
24...	8	1.9	.77	2.0	.70	<1.0	<.5	13	3.5	<.10
JUL										
11...	8	1.8	.77	2.9	.70	1.0	--	8.4	5.0	<.10
AUG										
04...	9	2.3	.80	3.3	.80	2.0	--	10	5.1	<.10
SEP										
21...	9	2.1	.93	3.1	.90	5.0	--	10	5.2	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
24...	5.7	38	<.010	.100	.070	.22	.32	.21	6.4
APR									
06...	2.7	42	<.010	<.100	.160	.36	--	.12	11
MAY									
24...	3.2	43	<.010	.170	.170	E.51	--	.21	10
JUL									
11...	4.8	43	.010	--	--	--	--	--	12
AUG									
04...	5.3	32	.010	.200	.130	.49	.69	--	10
SEP									
21...	5.0	33	<.010	.100	.070	.31	.41	--	6.4

01467000 NORTH BRANCH RANCOCAS CREEK AT PEMBERTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
MAY											
24...	0830	--	--	--	230	1	--	<10	80	1	--
SEP											
21...	0900	620	.5	9.1	--	--	<1	--	--	--	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
MAY											
24...	<10	--	--	5	--	1600	--	52	--	30	--
SEP											
21...	--	9	<10	--	40	--	2800	--	160	--	20

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
24...	<.1	--	1	--	<1	--	30	--	4	--	--
SEP											
21...	--	.02	--	20	--	<1	--	140	--	40	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	<.1	130	26	12	11	<.1	1.1	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01467060 DELAWARE RIVER AT PALMYRA, NJ

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, PA, Hydrologic Unit 02040202, on right bank opposite Palmyra, 0.5 mi upstream from Tacony-Palmyra Bridge, 3.5 mi downstream from Rancocas Creek, and at mile 107.55.

DRAINAGE AREA.--7,850 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--December 1962 to current year. Tidal volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Some periods of low tide are affected by sluggish or plugged intake and the record is estimated with negligible loss in accuracy. Some periods cannot be estimated and are noted by dash (—) lines. Missing or doubtful record on Oct. 19, 23-31, Nov. 1-16, Dec. 1-30, Jan. 1-9, 29-31, Feb. 1-29, Mar. 1-2, 14-31, Apr. 1-5, July 23-31, Aug. 1-6.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.23 ft Oct. 25, 1980; minimum, -8.6 ft (-2.6 m) Dec. 31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since 1899, 8.9 ft Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6.73 ft Apr. 24; minimum, -3.46 ft Jan. 20.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.37	5.06	--	5.40	--	--	6.73	6.31	6.10	5.79	5.88	5.61
high tide	Date	10	20	--	11	--	--	24	27	11	24	12	7
Minimum	Elevation	-3.23	-3.35	--	-3.46	--	--	-2.01	-3.21	-2.66	-3.13	-2.80	-2.93
low tide	Date	17	25	--	20	--	--	20	9	12	9	9	24
Mean high tide		--	--	--	--	--	--	5.52	5.06	5.06	4.76	4.78	4.64
Mean water level		--	--	--	--	--	--	2.36	1.71	1.69	1.44	1.53	1.46
Mean low tide		--	--	--	--	--	--	-0.93	-1.88	-1.97	-2.34	-2.11	-2.10

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ

LOCATION.--Lat 39°57'07", long 74°58'10", Burlington County, Hydrologic Unit 02040202, at bridge on Kings Highway, 200 ft downstream from outlet of Strawbridge Lake, 0.6 mi northwest of Moorestown Mall, 0.8 mi southeast of Lenola, and 1.8 mi southwest of Moorestown.

DRAINAGE AREA.--12.8 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 31...	1030	2.7	321	6.4	5.0	11.0	86	2.7	23	140
APR 11...	0915	35	130	--	10.0	10.0	88	2.3	9200	240
MAY 26...	0915	6.6	196	6.2	19.0	6.6	71	3.0	1600	>2400
JUL 20...	0945	--	302	7.1	27.0	5.2	66	4.6	140	2400
AUG 02...	0945	--	315	7.5	28.0	7.6	98	9.3	330	110
SEP 19...	0845	--	273	7.1	22.0	6.4	73	4.4	230	170

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 31...	85	24	6.1	17	5.1	14	--	68	33	.20
APR 11...	39	11	2.8	5.5	2.7	9.0	--	30	10	.10
MAY 26...	64	18	4.7	8.2	4.2	11	<.5	46	15	.20
JUL 20...	94	25	7.6	19	7.4	15	--	70	30	.40
AUG 02...	84	22	7.0	19	7.1	20	--	65	32	.40
SEP 19...	74	20	5.9	16	6.4	16	<.5	55	27	.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 31...	12	183	.020	.900	1.40	1.8	2.7	.18	2.7
APR 11...	5.9	86	.020	.500	.170	1.1	1.6	1.00	7.9
MAY 26...	10	147	.030	.800	.690	1.5	2.3	1.10	6.7
JUL 20...	11	215	.110	.600	2.10	2.4	3.0	1.19	11
AUG 02...	8.0	214	.050	.400	.560	2.7	3.1	1.32	7.8
SEP 19...	7.9	158	.070	.500	1.90	3.2	3.7	.49	6.6

01467069 NORTH BRANCH PENNSAUKEN CREEK NEAR MOORESTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY 26...	0915	130	4	<10	90	1	10	6
SEP 19...	0845	10	2	<10	60	2	10	--

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY 26...	5700	15	170	.1	19	<1	30	3
SEP 19...	4400	7	180	<.1	10	<1	20	<1

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ

LOCATION.--Lat 39°56'30", long 75°00'05", Camden County, Hydrologic Unit 02040202, on left bank on downstream wingwall of bridge on Mill Road in Cherry Hill, 1.1 mi south of Maple Shade and 3.8 mi upstream from confluence with the North Branch Pennsauken Creek.

DRAINAGE AREA.--8.98 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1976, October 1977 to current year.

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 8.12 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair and crest-stage gage. Diurnal fluctuations from unknown source.

AVERAGE DISCHARGE.--15 years, (water years 1968-76, 1978-83) 18.4 ft^3/s, 27.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 868 ft^3/s Aug. 28, 1978, gage height, 10.19 ft; maximum gage height, 11.34 ft Aug. 28, 1971; minimum discharge, 2.6 ft^3/s Oct. 6, 9, 10, 11, 1970, gage height, 1.71 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 21	1230	373	6.90	Apr. 24	2245	311	6.34
Apr. 10	1200	355	6.74	May 21	2130	319	6.42
Apr. 16	1315	*601	8.62				

Minimum discharge, 3.4 ft^3/s Nov. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	7.0	19	7.6	7.4	31	14	12	15	10	6.9	5.8
2	4.9	7.5	16	7.5	11	67	13	12	13	9.5	7.0	5.4
3	4.6	9.5	9.6	7.4	35	17	118	11	12	8.7	6.8	5.4
4	4.7	10	8.7	7.2	11	13	26	18	21	8.3	7.0	4.9
5	4.5	13	8.4	14	8.7	11	17	11	12	12	7.2	5.2
6	5.0	4.4	21	20	8.5	11	15	10	11	27	6.9	5.5
7	4.7	4.8	9.8	9.4	22	31	15	9.8	11	9.1	6.6	5.6
8	4.3	5.9	8.0	8.1	16	57	21	10	9.9	8.4	6.6	5.4
9	4.4	5.7	7.8	7.6	11	51	21	11	9.8	7.6	6.7	5.2
10	4.5	6.0	7.8	30	9.2	51	194	9.3	9.1	7.2	6.5	5.1
11	4.6	6.3	8.6	72	12	22	41	9.0	8.6	7.2	29	5.0
12	4.8	7.2	9.1	14	22	50	20	9.0	8.7	7.2	18	22
13	5.5	87	9.3	9.7	10	17	16	8.7	8.6	7.0	6.7	28
14	6.6	13	9.0	8.7	8.8	13	15	8.5	8.0	6.9	6.1	7.4
15	5.5	9.5	11	16	11	11	15	14	7.7	7.0	5.9	5.9
16	6.3	7.3	49	11	17	11	370	93	7.7	7.0	5.7	5.5
17	5.3	6.9	17	8.5	24	10	44	45	7.6	6.4	5.4	5.6
18	5.6	6.7	10	7.5	35	55	25	14	9.3	6.9	5.6	5.8
19	5.5	6.8	9.6	6.7	25	150	36	12	34	6.7	5.7	6.0
20	6.5	6.7	11	9.4	19	26	40	17	28	6.8	5.7	5.9
21	14	7.1	8.8	6.5	18	189	23	73	77	9.2	5.9	36
22	6.6	7.1	8.1	6.8	18	44	18	103	17	11	5.2	39
23	6.3	6.9	8.0	33	36	20	16	108	11	6.9	5.1	6.9
24	7.3	7.2	8.1	15	19	15	127	56	9.6	9.0	5.4	5.5
25	42	7.1	7.8	10	13	14	144	21	8.7	7.0	5.0	5.2
26	48	7.1	8.0	9.0	11	12	29	26	8.0	6.8	4.4	5.6
27	8.0	7.1	7.8	8.4	9.5	42	19	142	8.1	6.8	4.8	4.9
28	5.6	9.5	8.2	8.2	9.6	84	16	25	8.6	7.1	17	4.6
29	7.0	76	11	7.8	---	22	14	24	91	7.0	8.3	4.6
30	9.8	14	8.7	8.7	---	16	13	28	14	6.6	5.6	6.4
31	9.8	---	8.0	9.2	---	15	---	21	---	6.6	10	---
TOTAL	267.2	380.3	352.2	404.9	457.7	1178	1495	971.3	505.0	260.9	238.7	269.3
MEAN	8.62	12.7	11.4	13.1	16.3	38.0	49.8	31.3	16.8	8.42	7.70	8.98
MAX	48	87	49	72	36	189	370	142	91	27	29	39
MIN	4.3	4.4	7.8	6.5	7.4	10	13	8.5	7.6	6.4	4.4	4.6
CFSM	.96	1.41	1.27	1.46	1.82	4.23	5.55	3.49	1.87	.94	.86	1.00
IN.	1.11	1.58	1.46	1.68	1.90	4.88	6.19	4.02	2.09	1.08	.99	1.12

CAL YR 1982 TOTAL 6131.3 MEAN 16.8 MAX 425 MIN 2.9 CFSM 1.87 IN. 25.40
WTR YR 1983 TOTAL 6780.5 MEAN 18.6 MAX 370 MIN 4.3 CFSM 2.07 IN. 28.09

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 19...	1245	5.6	442	7.3	13.0	6.4	60	9.0	1100	200
JAN 19...	1100	6.7	400	--	.0	--	--	10	>2400	920
APR 12...	0900	20	252	6.9	10.0	10.0	89	3.1	330	33
JUN 01...	1200	6.7	289	6.7	17.5	8.8	93	4.7	1400	2300
JUL 20...	1130	6.1	400	7.5	24.0	4.4	53	5.0	22000	24000
AUG 02...	1040	5.6	435	7.4	25.0	5.3	64	7.2	17000	3100
SEP 19...	1115	14	403	7.5	21.0	5.1	57	5.7	2400	230

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 19...	88	24	6.7	36	11	48	--	46	33	.20
JAN 19...	94	25	7.6	27	8.4	19	--	66	33	.20
APR 12...	75	20	6.2	15	4.1	19	--	55	20	.20
JUN 01...	89	24	7.0	17	5.7	27	--	55	26	.20
JUL 20...	90	24	7.3	31	9.6	47	--	50	36	.30
AUG 02...	87	23	7.3	36	9.8	48	--	53	39	.30
SEP 19...	88	24	6.8	32	10	49	<.5	48	34	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 19...	14	248	.360	1.90	3.60	6.0	7.9	6.00	4.1
JAN 19...	15	209	.100	1.70	4.70	6.0	7.7	3.00	10
APR 12...	12	161	.060	1.00	1.40	E2.0	--	1.50	5.8
JUN 01...	13	183	.180	1.40	E1.90	2.8	4.2	2.50	5.8
JUL 20...	13	260	.630	1.10	3.10	E3.6	--	4.91	9.8
AUG 02...	14	238	.190	.740	4.20	E3.0	--	5.21	6.4
SEP 19...	14	230	.140	.730	5.80	5.8	6.5	--	6.0

01467081 SOUTH BRANCH PENNSAUKEN CREEK AT CHERRY HILL, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
SEP											
19...	1115	1100	.3	3.2	<10	3	<1	<10	250	2	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERALE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
SEP											
19...	10	2	<10	8	0	1600	920	4	<10	60	4

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
19...	<.1	.01	3	<10	<1	<1	30	10	2	9	<1.0

DATE	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
19...	<.1	32	15	8.6	14	<.1	1.9	<.1	<.1	<.1	<.1

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP											
19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ

LOCATION.--Lat 39°49'43", long 74°58'55", Camden County, Hydrologic Unit 02040202, at bridge on Norcross Road in Lindenwold, 50 ft downstream from outflow of Linden Lake, 1.1 mi southwest of Gibbstown, and 1.7 mi south of Glendale.

DRAINAGE AREA.--1.13 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT 18...	1115	81	6.7	12.0	8.5	78	2.4	<2	2	23
JAN 18...	1215	93	--	--	--	--	.7	4	350	24
MAR 16...	1000	79	--	9.0	10.7	93	1.0	<2	2	20
MAY 23...	1115	81	--	19.0	6.2	68	6.4	>2400	>2400	18
JUL 13...	1015	71	6.6	24.0	4.8	57	2.1	79	90	21
AUG 03...	1015	68	6.6	25.0	4.6	56	3.6	1300	22000	20
SEP 22...	1030	79	6.7	20.0	7.0	77	1.4	130	130	24

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 18...	7.2	1.3	4.4	1.6	15	<.5	8.0	8.5	<.10
JAN 18...	7.4	1.3	6.5	1.5	12	--	11	9.8	<.10
MAR 16...	6.1	1.1	5.6	1.3	9.0	--	14	8.8	<.10
MAY 23...	5.7	1.0	5.4	1.5	8.0	<.5	10	6.7	<.10
JUL 13...	6.5	1.1	5.2	1.0	14	--	8.1	8.4	.10
AUG 03...	6.3	1.0	4.0	1.1	14	--	8.8	7.8	<.10
SEP 22...	7.7	1.1	4.1	1.6	14	--	11	7.9	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 18...	2.5	48	.010	<.100	.170	.17	--	.09	4.0
JAN 18...	4.0	64	<.010	<.100	.070	.37	--	.09	5.6
MAR 16...	2.5	59	<.010	.200	.420	.59	.79	.15	7.1
MAY 23...	2.8	62	.010	E.100	.900	E1.4	--	.44	11
JUL 13...	.9	59	<.010	<.100	.090	.58	--	.40	8.7
AUG 03...	1.1	46	.010	.100	.130	.98	1.1	.61	7.4
SEP 22...	1.4	57	<.010	<.100	.240	.58	--	.24	5.8

01467120 COOPER RIVER AT NORCROSS ROAD AT LINDENWOLD, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
18...	1115	20	1	<10	30	<1	10	3
MAY								
23...	1115	170	1	<10	80	1	<10	4

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
18...	1500	4	20	<.1	2	<1	20	3
MAY								
23...	1300	7	70	<.1	4	<1	50	<1

01467140 COOPER RIVER AT LAWNSIDE, NJ

LOCATION.--Lat 39°52'14", long 75°00'59", Camden County, Hydrologic Unit 02040202, at bridge on Woodcrest Road in Lawnside, 0.2 mi upstream from the New Jersey Turnpike, and 1.7 mi upstream from Tindale Run.

DRAINAGE AREA.--12.7 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
JAN 24...	1015	362	6.6	6.0	8.6	69	8.2	80	20
MAR 17...	0900	303	6.6	10.0	8.1	71	8.9	9200	630
MAY 19...	1000	219	--	16.0	6.6	66	6.6	<200	<200
JUL 27...	1100	354	7.4	23.0	4.0	47	9.9	35000	7000
AUG 15...	1100	345	7.1	21.5	4.5	51	9.6	3400	800

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 24...	52	15	3.5	27	7.5	15	27	37	.20
MAR 17...	54	15	3.9	24	6.6	13	34	29	.20
MAY 19...	49	14	3.3	17	5.1	17	25	23	.20
JUL 27...	62	18	4.1	30	9.4	30	23	35	.40
AUG 15...	64	19	4.0	29	9.4	20	30	38	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN 24...	11	148	.070	.500	8.60	E9.4	--	3.50	15
MAR 17...	11	187	.090	.600	5.80	6.6	7.2	4.50	13
MAY 19...	9.8	115	.130	.800	4.30	4.6	5.4	2.60	8.6
JUL 27...	14	236	.350	.800	7.70	E6.4	--	5.21	11
AUG 15...	13	190	.230	.900	8.40	8.9	9.8	6.44	9.4

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'19", Camden County, Hydrologic Unit 02040202, on right bank of Wallworth Lake in Pennypacker Park, 200 ft upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi upstream from North Branch Cooper River, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--17.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WRD-NJ 1969: 1967(M). WDR NJ-82-82: Drainage area.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 9.29 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those below 70 ft^3/s, which are fair. Occasional regulation at low flow from Kirkwood Lake, other small lakes and wastewater treatment plants.

AVERAGE DISCHARGE.--20 years, 35.7 ft^3/s, 28.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft^3/s Aug. 28, 1971, gage height, 5.46 ft; minimum, 0.8 ft^3/s Nov. 13, 1972, gage height, 1.07 ft regulation from unknown source; minimum daily, 1.2 ft^3/s June 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 21	1515	548	2.79	Apr. 16	0830	*983	3.39
Apr. 10	1445	593	2.86				

Minimum discharge, 13 ft^3/s Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	40	21	23	52	30	41	40	27	22	18
2	15	17	37	19	28	121	30	41	35	25	21	17
3	15	17	26	20	69	37	205	39	33	19	21	16
4	15	17	24	19	28	29	62	56	46	22	21	15
5	15	30	23	29	22	26	39	43	37	27	20	15
6	15	19	41	41	21	26	42	40	33	27	17	17
7	15	17	24	25	40	54	48	40	33	23	19	18
8	16	17	21	22	33	89	67	38	30	20	18	17
9	16	17	19	21	24	91	63	42	28	20	19	17
10	15	18	19	44	22	88	361	36	29	18	19	17
11	15	18	20	149	20	50	108	29	28	19	46	16
12	16	17	22	42	23	105	47	29	27	19	46	37
13	16	145	23	30	24	44	37	26	26	19	23	50
14	18	35	21	29	23	34	34	25	26	18	20	24
15	17	25	23	45	23	32	33	35	26	18	18	19
16	18	20	83	34	30	29	589	164	27	18	17	17
17	18	20	38	30	38	28	108	110	28	17	17	17
18	19	20	25	27	56	95	49	36	38	18	17	17
19	20	20	23	22	48	278	59	31	60	19	18	17
20	20	19	25	17	39	53	70	37	69	19	17	19
21	27	20	22	18	37	271	48	86	134	20	17	51
22	18	21	21	18	39	96	37	222	48	21	17	91
23	16	21	20	48	67	40	35	124	33	17	17	24
24	16	20	21	32	43	33	213	75	30	21	16	18
25	66	20	20	25	29	30	300	41	27	20	15	18
26	98	20	20	22	26	28	77	47	25	19	15	19
27	27	21	20	22	25	71	56	310	26	18	14	18
28	20	25	22	23	25	172	48	62	41	19	26	17
29	18	135	24	22	---	47	45	50	108	19	23	16
30	16	37	22	24	---	34	43	60	32	22	19	18
31	16	---	19	26	---	32	---	53	---	21	19	---
TOTAL	668	865	808	966	925	2215	2983	2068	1203	629	634	690
MEAN	21.5	28.8	26.1	31.2	33.0	71.5	99.4	66.7	40.1	20.3	20.5	23.0
MAX	98	145	83	149	69	278	589	310	134	27	46	91
MIN	15	17	19	17	20	26	30	25	25	17	14	15
CFSM	1.26	1.69	1.54	1.84	1.94	4.21	5.85	3.92	2.36	1.19	1.21	1.35
IN.	1.46	1.89	1.77	2.11	2.02	4.85	6.53	4.53	2.63	1.38	1.39	1.51

CAL YR 1982 TOTAL 12306 MEAN 33.7 MAX 379 MIN 15 CFSM 1.98 IN. 26.93
WTR YR 1983 TOTAL 14654 MEAN [illegible]0.1 MAX 589 MIN 14 CFSM 2.36 IN. 32.07

01467190 COOPER RIVER AT CAMDEN, NJ

LOCATION.--Lat 39°55'35", long 75°05'03", Camden County, Hydrologic Unit 02040202, at bridge on U.S. Routes 130 and 30 in Camden, 3.4 mi upstream from mouth, 3.5 mi northwest of Haddonfield, and 3.7 mi downstream from North Branch Cooper River.

DRAINAGE AREA.--35.2 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-71, 1976 to June 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)	HARDNESS (MG/L AS CACO3)
OCT										
19...	1100	400	8.5	13.0	17.0	160	>26	>2400	240	74
JAN										
19...	0900	309	7.0	.0	--	--	--	790	330	64
APR										
07...	0945	185	6.5	12.0	6.6	61	3.8	330	20	46
JUN										
01...	0945	187	6.6	19.0	4.6	50	3.5	50	70	54

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
19...	21	5.2	37	10	38	--	35	38	.40
JAN									
19...	18	4.6	25	6.6	23	--	63	31	.20
APR									
07...	13	3.4	11	4.0	13	--	27	15	.20
JUN									
01...	15	4.1	12	4.0	21	<.5	27	15	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
19...	4.4	221	.760	1.20	4.40	8.7	9.9	1.20	3.4
JAN									
19...	12	192	.040	1.10	5.30	5.9	7.0	2.10	9.6
APR									
07...	7.5	102	.700	.700	2.50	2.9	3.6	1.80	5.9
JUN									
01...	8.6	101	--	.700	E2.20	2.9	3.6	--	7.3

01467190 COOPER RIVER AT CAMDEN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT								
19...	1100	40	3	<10	280	1	10	8
JUN								
01...	0945	110	4	10	110	1	20	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
19...	780	16	50	.1	6	<1	20	1
JUN								
01...	2700	39	80	.1	7	<1	20	<1

01467329 SOUTH BRANCH BIG TIMBER CREEK AT BLACKWOOD TERRACE, NJ

LOCATION.--Lat 39°48'05", long 75°04'27", Gloucester County, Hydrologic Unit 02040202, at bridge on Blackwood-Clementon Road at Blackwood Terrace, 1,000 ft upstream from Bull Run, and 2.0 mi northeast of Fairview.

DRAINAGE AREA.--19.1 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT										
18...	0900	22	124	6.7	9.0	5.2	45	4.8	79	240
JAN										
18...	0830	21	225	--	.0	--	--	3.9	40	170
MAR										
16...	0800	26	137	--	8.0	10.0	85	1.4	2	490
MAY										
23...	0800	221	121	--	17.0	8.3	87	9.0	2400	16000
JUL										
13...	0800	80	126	7.0	24.0	5.6	67	1.6	130	20
AUG										
03...	0830	29	126	7.1	24.0	5.6	67	1.8	200	1300
SEP										
22...	0845	132	142	6.8	20.0	7.0	77	1.1	>2400	350

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT										
18...	37	10	3.0	7.8	2.6	23	--	10	14	<.10
JAN										
18...	47	14	3.0	18	4.6	25	--	25	19	.20
MAR										
16...	39	11	2.9	7.2	2.2	22	--	18	11	<.10
MAY										
23...	37	11	2.4	5.4	2.3	21	--	13	7.8	.10
JUL										
13...	39	11	2.9	8.4	2.4	23	--	12	13	.10
AUG										
03...	37	10	2.9	7.9	2.6	26	--	10	12	.10
SEP										
22...	40	11	3.0	8.2	3.3	21	<.5	17	14	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
18...	4.8	73	.030	1.30	.050	.33	1.6	.34	3.0
JAN									
18...	9.6	120	.020	1.50	.210	.41	1.9	.28	6.1
MAR									
16...	5.7	83	.030	1.10	.220	.78	1.9	.49	4.5
MAY									
23...	5.7	96	.040	E.900	.380	E.92	--	.55	7.1
JUL									
13...	4.0	79	.040	1.20	.140	.63	1.8	.73	4.9
AUG									
03...	3.9	76	.040	1.00	.110	--	--	.73	2.9
SEP									
22...	5.1	84	.040	1.10	.220	.95	2.1	.73	4.4

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ

LOCATION.--Lat 39°50'04", long 75°04'02", Camden County, Hydrologic Unit 02040202, at bridge on State Route 168 in Glendora, 0.5 mi downstream from Otter Brook, 1.0 mi southeast of Clements Bridge, and 1.6 mi north of Mechanicsville.

DRAINAGE AREA.--18.8 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to May 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)	HARD-NESS (MG/L AS CACO3)
OCT										
13...	0945	208	6.8	--	--	--	--	1600	540	50
JAN										
18...	1000	142	--	.0	--	--	.4	1600	490	41
MAR										
16...	0900	204	6.7	7.0	8.0	67	6.6	>2400	>2400	49
MAY										
23...	0930	128	--	17.5	4.4	47	9.3	3400	13000	36

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
13...	15	3.1	17	4.6	38	--	19	15	.20
JAN									
18...	12	2.7	7.4	2.6	22	--	14	9.8	<.10
MAR									
16...	15	2.9	14	3.6	28	--	26	16	.20
MAY									
23...	11	2.1	7.0	2.8	22	<.5	17	7.6	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
13...	8.8	131	E.130	1.80	.890	E1.7	--	.06	3.6
JAN									
18...	6.4	84	.030	1.20	2.30	2.8	4.0	1.60	7.2
MAR									
16...	8.7	115	.050	1.20	1.40	2.3	3.5	3.60	5.4
MAY									
23...	6.1	80	.060	E.100	.530	E1.6	--	.33	6.7

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
MAY								
23...	0930	<10	3	<10	170	1	<10	11

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
MAY								
23...	4500	20	70	<.1	11	<1	50	<1

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi upstream from mouth. Water-quality sampling site 1.6 mi upstream.

DRAINAGE AREA.--1,893 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 301, 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft National Geodetic Vertical Datum of 1929. Prior to November 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. November 26, 1956, to October 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--Records good. Flow regulated by Still Creek Reservoir (sta 01469200) since February 1933, Blue Marsh Reservoir (sta 01470870) since April 1979, Green Lane Reservoir (sta 01472200) since December 1956 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft³. Records of discharge do not include diversion above station by City of Philadelphia for municipal water supply.

AVERAGE DISCHARGE.--52 years, 2,937 ft³/s, 21.07 in/yr, adjusted for diversion from October 1931 to September 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s June 23, 1972, gage height, 14.65 ft; no flow over dam at times; minimum daily, 0.6 ft³/s Sept. 2, 1966.

EXTREMS OUTSIDE PERIOD OF RECORD.--Flood of October 4, 1869, reached a stage of 17.0 ft, discharge, 135,000 ft³/s, from rating extended above 46,000 ft³/s. Flood of March 1, 1902, reached a stage of 14.8 ft, discharge, 98,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50,400 ft³/s, Apr. 16, gage height, 11.42 ft; minimum, 142 ft³/s Sept. 8, gage height 5.59 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	863	650	2500	1350	2720	3850	4620	5600	3860	3070	586	694
2	760	619	2990	1270	2630	6990	4200	5070	3340	2260	564	444
3	769	619	2460	1240	9010	5880	9280	4650	2970	1880	561	376
4	109	709	2120	1200	11800	4990	8310	4530	3160	1610	590	357
5	679	3180	1920	1240	7910	4260	5810	4410	5900	1520	568	325
6	927	2370	1840	1610	5650	3700	4950	3850	4540	1510	596	307
7	927	1650	1690	1690	4780	3700	4520	3450	3840	1370	632	269
8	927	1350	1540	1420	4200	4150	4910	3300	3800	1220	561	254
9	927	1200	1420	1310	3610	5050	8970	3420	3360	1110	452	274
10	927	1130	1270	1400	3130	5260	22200	3320	3000	1010	410	230
11	927	1130	1200	4200	2770	5770	20000	2990	2610	973	619	246
12	895	1100	1200	2900	1960	5650	12500	2770	2290	932	1150	608
13	895	2330	1170	2160	2370	5600	9430	2610	2220	865	1680	1090
14	993	2370	1060	1760	2720	4510	7760	2480	2180	819	1020	500
15	1350	1650	993	1730	2500	3900	7100	2490	2020	758	793	492
16	1200	1350	2160	1880	2590	3510	34200	3700	1760	673	649	398
17	769	1240	4410	1730	2590	3130	33000	4860	1600	635	507	350
18	679	1200	3270	1500	2630	3320	18000	3550	1670	711	494	329
19	619	1100	2500	1240	3130	9490	14500	2800	2210	1070	520	319
20	588	1060	2330	1060	3220	7410	13300	2630	2590	1110	457	296
21	739	1060	2160	1100	3180	15900	12900	3090	4000	941	381	907
22	650	1100	2000	1130	3750	13600	8420	3770	4440	971	380	1570
23	709	1060	1800	2680	4830	8410	6590	8120	2900	816	345	847
24	650	1100	1730	7230	5710	6570	7750	6300	2230	865	372	596
25	895	993	1690	6340	5210	5540	19900	4700	1860	835	329	468
26	1240	993	1650	4730	4890	4670	13500	4440	1700	876	315	419
27	1130	863	1570	3850	3950	4890	10500	6470	1540	725	263	376
28	927	927	1500	3270	3700	15000	8360	4360	1460	647	303	343
29	760	3370	1570	2770	---	8480	7030	3620	3720	595	483	346
30	650	3560	1540	2500	---	6400	6090	5480	4460	486	459	324
31	650	---	1420	2810	---	5260	---	5010	---	491	656	---
TOTAL	26348	43033	58673	72360	117140	194840	348600	128040	87230	33354	17724	14354
MEAN	850	1434	1893	2334	4184	6285	11620	4130	2908	1076	572	478
MAX	1350	3560	4410	7230	11800	15900	34200	8120	5900	3070	1680	1570
MIN	588	619	993	1060	1960	3130	4200	2480	1460	486	263	230
†	240	229	217	206	206	222	249	263	286	314	289	265

CAL YR 1982 TOTAL 942429 MEAN 2582 MAX 24200 MIN 558
WTR YR 1983 TOTAL 1141696 MEAN 3128 MAX 34200 MIN 230

† Diversion, equivalent in cubic feet per second, for municipal water supply, furnished by City of Philadelphia.

01475045 MANTUA CREEK AT MANTUA, NJ

LOCATION.--Lat 39°47'42", long 75°10'21", Gloucester County, Hydrologic Unit 02040202, at bridge on State Route 45 in Mantua, 0.9 mi downstream from Chestnut Branch, 1.3 mi east of Gates of Heaven Memorial Park, and 2.4 mi northwest of Barnsboro.

DRAINAGE AREA.--31.1 mi^2.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to May 1983 (discontinued).

COOPERATION.--Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
JAN									
17...	1000	173	7.3	1.0	13.8	96	.8	110	33
APR									
04...	0930	134	6.3	11.0	9.4	85	1.5	140	170
MAY									
19...	0830	188	--	15.0	6.8	67	3.0	1700	500

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN									
17...	58	15	4.0	8.8	3.0	26	33	9.6	.20
APR									
04...	43	12	3.2	6.1	2.7	18	25	9.1	.10
MAY									
19...	50	14	3.6	8.3	2.6	24	27	12	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
JAN									
17...	9.9	124	.010	1.30	.050	.38	1.7	.31	2.8
APR									
04...	6.7	86	.020	1.00	E.170	.69	1.7	.34	5.1
MAY									
19...	8.2	116	.010	.800	.180	.71	1.5	.36	4.6

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'28", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, on right bank 25 ft downstream from county bridge No. 5-F-3 on Harrisonville-Gibbstown Road, 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

DRAINAGE AREA.--26.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1966 to current year.

REVISED RECORDS.--WDR NJ-82-82: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 28, 1969, at datum 7.96 ft higher. July 28, 1969 to Sept. 30, 1969, at datum 5.96 ft higher.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--17 years, 41.6 ft³/s, 18.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,530 ft³/s Aug. 10, 1967, elevation, 17.44 ft, present datum; minimum daily, 2.9 ft³/s July 14, Aug. 27, 28, Sept. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Mar. 19	1015	323	10.57	Apr. 16	1030	*1410	14.40
Mar. 21	2000	447	11.35	Apr. 25	0745	626	12.18
Mar. 28	0700	365	10.85	May 27	1115	445	11.34
Apr. 10	1745	669	12.35	June 21	0045	608	12.14

Minimum discharge, 13 ft³/s part or all of Oct. 2-6, Oct. 8-12, Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	25	29	19	21	35	45	52	57	38	16	18
2	14	24	31	19	23	95	41	50	51	37	16	17
3	13	23	25	19	38	49	153	47	47	34	16	16
4	13	23	22	18	30	37	83	48	57	32	16	16
5	13	28	21	22	24	33	55	35	72	32	16	16
6	14	27	25	33	23	31	48	35	47	32	16	16
7	14	25	23	25	30	43	47	40	47	30	16	15
8	14	25	21	22	31	81	50	40	43	29	15	15
9	13	24	20	20	27	73	54	41	39	28	14	14
10	13	23	20	29	25	68	377	38	36	26	14	14
11	13	23	21	76	34	58	214	37	36	25	22	14
12	13	24	22	37	74	77	82	37	35	25	32	16
13	14	62	22	27	49	53	58	36	34	24	22	21
14	16	39	21	24	35	41	52	35	33	23	19	18
15	16	25	21	29	26	37	57	37	31	21	17	17
16	16	21	47	29	29	35	861	103	29	20	16	16
17	15	19	40	24	32	33	225	150	29	19	16	16
18	15	18	27	22	39	59	104	64	29	30	16	16
19	16	18	23	20	47	245	86	49	34	29	16	16
20	16	18	23	19	44	83	98	52	155	39	16	15
21	17	18	22	19	44	244	91	59	466	28	15	25
22	16	18	21	19	44	160	75	96	139	25	15	49
23	16	18	20	36	57	63	65	177	64	22	15	22
24	16	18	20	35	52	50	160	88	49	23	14	19
25	26	18	19	28	38	45	429	60	41	23	14	18
26	56	18	20	25	32	41	123	57	36	22	14	17
27	40	17	20	23	29	63	82	324	35	20	14	17
28	32	18	20	22	28	242	72	103	38	18	15	17
29	28	73	21	21	---	78	63	76	89	17	33	17
30	27	42	21	21	---	54	57	80	45	17	32	17
31	26	---	19	23	---	48	---	67	---	16	19	---
TOTAL	585	772	727	805	1005	2354	4007	2213	1943	804	547	540
MEAN	18.9	25.7	23.5	26.0	35.9	75.9	134	71.4	64.8	25.9	17.6	18.0
MAX	56	73	47	76	74	245	861	324	466	39	33	49
MIN	13	17	19	18	21	31	41	35	29	16	14	14
CFSM	.70	.96	.87	.97	1.33	2.82	4.98	2.65	2.41	.96	.65	.67
IN.	.81	1.07	1.01	1.11	1.39	3.26	5.54	3.06	2.69	1.11	.76	.75

CAL YR 1982 TOTAL 12217 MEAN 33.5 MAX 355 MIN 11 CFSM 1.25 IN. 16.89
WTR YR 1983 TOTAL 16302 MEAN 44.7 MAX 861 MIN 13 CFSM 1.66 IN. 22.54

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1966 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and selected water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
05...	1015	13	188	7.5	16.5	9.0	92	1.7	79	240
JAN										
25...	0745	27	180	6.8	3.0	11.8	88	.9	50	94
MAR										
15...	0830	38	171	--	8.0	11.8	101	.3	110	11
MAY										
17...	0945	167	118	--	12.0	9.2	85	1.8	3500	3500
JUL										
12...	0845	26	170	7.3	22.0	8.4	96	1.1	330	1100
AUG										
04...	1000	16	180	7.3	23.5	7.7	--	E2.1	70	920
SEP										
26...	1300	18	233	7.6	14.0	9.7	--	E1.7	130	350

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT										
05...	72	22	4.1	5.0	4.1	37	--	22	13	.20
JAN										
25...	56	16	3.8	4.5	3.4	21	--	28	12	.20
MAR										
15...	57	17	3.5	3.0	3.0	18	--	33	11	.20
MAY										
17...	48	14	3.2	4.3	2.7	11	<.5	28	8.7	.20
JUL										
12...	63	19	3.7	4.3	3.3	29	--	26	12	.20
AUG										
04...	67	20	4.1	6.5	3.6	36	--	25	14	.20
SEP										
26...	71	22	3.8	12	4.1	40	<.5	26	18	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	11	137	.010	1.50	<.050	.22	1.7	.28	2.2
JAN									
25...	9.3	113	<.010	2.30	.120	.35	2.7	.28	2.7
MAR									
15...	8.8	103	.010	1.70	<.050	.40	2.1	.24	3.5
MAY									
17...	6.3	95	.010	1.30	.100	.89	2.2	.58	6.9
JUL									
12...	9.4	120	.030	--	--	--	--	--	4.0
AUG									
04...	10	124	.030	1.30	.050	.34	1.6	--	3.6
SEP									
26	12	126	.010	1.70	<.050	.23	1.9	--	5.1

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)
OCT											
05...	1015	640	.2	4.3	--	--	<1	--	--	--	<1
MAY											
17...	0945	--	--	--	110	2	--	<10	40	1	--
SEP											
26...	1300	--	--	--	10	3	--	<10	120	<1	--

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB,	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ABLE (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)
OCT											
05...	--	4	10	--	0	--	9400	--	10	--	110
MAY											
17...	10	--	--	3	--	2000	--	12	--	50	--
SEP											
26...	20	--	--	3	--	1000	--	8	--	30	--

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT											
05...	--	<.01	--	<10	--	<1	--	30	--	<1	<1.0
MAY											
17...	<.1	--	7	--	1	--	50	--	<1	--	--
SEP											
26...	<.1	--	<1	--	<1	--	30	--	3	--	--

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT											
05...	<.1	<1.0	2.8	2.3	2.8	<.1	<.1	<.1	<.1	<.1	<.1
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOTTOM MATERIL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT											
05...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

01477510 OLDMANS CREEK AT PORCHES MILL, NJ

LOCATION.--Lat 39°41'57", long 75°20'01", Salem County, Hydrologic Unit 02040206, at bridge on Kings Highway in Porches Mill, 150 ft downstream of tributary from outflow of lake at Porches Mill, 1.0 mi north of Seven Stars, and 2.1 mi southeast of Auburn.

DRAINAGE AREA.--21.0 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 07...	0930	--	218	7.2	17.0	8.0	82	1.5	330	460
JAN 25...	0945	22	216	6.8	4.0	12.4	95	1.0	22	170
MAR 15...	1000	26	185	--	8.0	11.9	102	.4	33	5
MAY 17...	1200	123	138	--	14.0	10.1	98	2.7	16000	2800
JUL 18...	1015	13	197	7.1	25.0	6.7	81	3.8	1700	2400
AUG 04...	1200	--	210	7.3	24.0	7.6	--	E2.2	230	350
SEP 26...	1100	--	216	7.5	14.5	9.4	--	2.8	230	79

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 07...	84	25	5.3	4.6	3.6	43	--	24	16	.30
JAN 25...	73	21	5.0	4.5	3.5	21	--	33	15	.20
MAR 15...	56	16	4.0	3.9	3.1	17	--	30	13	.20
MAY 17...	58	16	4.3	4.5	3.1	15	--	28	12	.20
JUL 18...	80	23	5.4	4.9	4.2	36	--	22	14	.20
AUG 04...	82	24	5.4	4.6	3.6	43	--	24	16	.30
SEP 26...	79	23	5.3	4.6	4.0	38	<.5	26	17	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 07...	14	141	E.020	1.70	.060	.54	2.2	.21	2.6
JAN 25...	11	143	.010	3.10	.120	.37	3.5	.21	3.3
MAR 15...	8.6	119	.020	2.40	<.050	.61	3.0	.21	3.9
MAY 17...	6.1	106	.020	1.80	.080	1.0	2.8	.36	7.0
JUL 18...	11	208	.020	1.60	.050	.62	2.2	.40	7.1
AUG 04...	9.4	133	.020	1.40	.080	.56	2.0	.43	4.9
SEP 26...	13	132	.010	1.60	.050	.51	2.1	.40	2.7

01481602 DELAWARE RIVER BELOW CHRISTINA RIVER AT WILMINGTON, DE

LOCATION.--Lat 39°43'00", long 75°31'03", New Castle County, DE, Hydrologic Unit 02040206, on right bank, 1,000 ft from Mouth of Christina River at the Wilmington Marine Terminal at Wilmington, 2.0 mi upstream of Delaware Memorial Bridge, and at mile 69.70.

DRAINAGE AREA.--11,030 mi^2.

TIDE ELEVATION DATA

PERIOD OF RECORD.--December 1982 to September 1983. July 1967 to May 1983 published as Delaware River at Delaware Memorial Bridge, at Wilmington, DE. Tidal volumes published from July 1967 to September 1973.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft National Geodetic Vertical Datum of 1929. Prior to Dec. 1982, water-stage recorder at Delaware River at Delaware Memorial Bridge 2.0 mi downstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum 1929 for publication.

REMARKS.--Elevation records good. Record at this site is considered compatible with that at station 01482100. Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines. Missing or doubtful record on June 28-30, July 1-31.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 7.88 ft Oct. 25, 1980; minimum, -5.86 ft Apr. 4, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.4 ft Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum, -9.1 ft Dec. 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6.46 ft Apr. 3; minimum -3.67 ft Feb. 5.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation			5.43	5.58	5.14	6.33	6.46	5.61	5.46	--	5.55	5.27
high tide	Date			19	29	25	27	3	25	10	--	11	6
Minimum	Elevation			-2.77	-3.56	-3.67	-2.79	-2.38	-2.68	-2.15	--	-2.02	-2.01
low tide	Date			9	19	5	23	20	9	12	--	9	24
Mean high tide				3.76	3.46	3.77	4.20	4.43	4.25	4.38	--	4.32	4.21
Mean water level				1.24	0.95	1.32	1.64	1.77	1.51	1.53	--	1.61	1.58
Mean low tide				-1.44	-1.72	-1.44	-1.13	-1.07	-1.37	-1.46	--	-1.27	-1.24

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, AT WILMINGTON, DE

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, DE, Hydrologic Unit 02040205, on pier of right tower of downstream bridge of dual bridges at Wilmington, 2.0 mi downstream from Christina River and at mile 67.70.

DRAINAGE AREA.--11,030 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--July 1967 to May 1983 (discontinued). Tidal volumes published from July 1967 to September 1973.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum 1929 for publication.

REMARKS.--Elevation records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 7.88 ft Oct. 25, 1980; minimum, -5.86 ft Apr. 4, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.4 ft Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum, -9.1 ft Dec. 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6.28 ft Apr. 3; minimum, -3.75 ft Feb. 5.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.71	5.19	5.12	5.45	5.13	6.00	6.28	5.44				
high tide	Date	10	4	19	29	25	19,27	3	25				
Minimum	Elevation	-2.54	-3.37	-2.97	-3.51	-3.75	-3.09	-2.52	-2.72				
low tide	Date	17	13	9	19	5	23	20	9				
Mean high tide		4.01	3.38	3.52	3.35	3.67	3.99	4.27	4.13				
Mean water level		1.50	0.87	1.02	0.86	1.19	1.43	1.60	1.38				
Mean low tide		-1.17	-1.75	-1.64	-1.77	-1.48	-1.32	-1.24	-1.50				

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'52", Salem County, Hydrologic Unit 02040206, on right end of Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 1940, December 1941 to current year. Prior to October 1952, published as "Salem Creek at Woodstown".

REVISED RECORDS.--WSP 1432: 1951(M). WSP 1702: 1959.

GAGE.--Water-stage recorder above concrete dam. Datum of gage is 19.49 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977 at datum 10.00 ft higher.

REMARKS.--Water-discharge records fair except those below 5 ft^3/s, which are poor.

AVERAGE DISCHARGE.--41 years (water years 1943-83), 19.0 ft^3/s, 17.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft^3/s Sept. 1, 1940, gage height, 17.98 ft, present datum, from floodmark, from rating curve extended above 220 ft^3/s on basis of slope-area measurement of peak flow at site 0.5 mi downstream; no flow for short periods during many years just after waste gate was closed and water was below spillway.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 16	0900	1300	12.62	June 20	2400	*2090	13.07
May 27	0700	378	11.85				

Minimum discharge, 2.1 ft^3/s Oct. 2, gage height 11.08 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	6.9	16	6.9	7.8	18	20	23	27	12	6.7	9.3
2	2.7	7.4	19	6.9	9.5	55	19	21	24	14	5.5	8.6
3	3.0	9.5	13	5.9	29	26	97	21	21	13	5.0	8.6
4	3.6	9.7	12	5.0	17	19	38	24	23	12	5.2	9.5
5	4.3	13	10	7.4	11	15	26	24	20	12	7.5	10
6	5.2	11	12	19	10	14	22	21	19	12	8.0	10
7	6.4	8.0	9.6	13	15	25	21	19	21	11	5.3	10
8	6.4	6.9	8.6	10	17	58	23	18	19	10	4.3	9.3
9	5.4	7.5	7.6	8.7	15	45	31	16	17	10	4.2	8.6
10	5.2	7.6	6.9	14	13	49	204	14	16	8.8	3.2	8.6
11	5.2	8.4	6.9	65	13	35	77	14	16	8.6	4.6	9.0
12	5.2	8.5	8.5	22	11	54	37	14	16	8.4	7.3	9.6
13	5.2	36	8.6	14	12	30	28	14	16	6.7	5.8	13
14	6.2	21	7.4	11	11	22	26	14	16	6.7	4.2	14
15	7.4	12	6.5	15	10	19	24	15	16	6.9	4.1	11
16	7.4	9.8	31	16	14	16	550	51	16	6.0	6.5	10
17	7.4	8.6	27	11	21	15	73	71	16	5.5	6.9	10
18	7.2	8.1	14	9.3	33	44	38	25	16	7.5	6.2	11
19	7.2	6.9	10	7.6	41	124	35	21	14	5.5	5.0	12
20	7.4	6.9	9.7	6.9	30	38	43	20	184	5.6	5.0	11
21	7.9	6.9	7.9	6.9	27	152	40	35	609	6.8	4.3	16
22	8.2	7.5	6.9	6.9	25	68	29	88	79	6.4	4.1	28
23	8.2	8.6	6.9	16	32	29	26	146	36	6.7	4.6	12
24	8.2	7.9	6.9	21	29	23	82	41	21	13	5.0	8.8
25	13	6.9	6.9	14	19	20	198	27	15	9.5	5.5	7.5
26	20	6.8	6.9	10	15	17	50	33	13	8.6	5.8	6.9
27	11	6.9	6.9	9.0	14	38	34	215	12	8.6	6.9	6.3
28	7.6	8.3	6.9	8.5	14	137	29	47	13	8.6	9.4	4.4
29	5.9	52	7.6	7.0	---	36	26	33	22	8.0	12	3.2
30	6.2	25	7.6	7.4	---	25	24	38	15	8.0	18	3.5
31	6.9	---	6.9	8.6	---	23	---	31	---	7.8	11	---
TOTAL	214.3	350.5	322.6	389.9	515.3	1289	1970	1194	1368	274.2	197.1	299.7
MEAN	6.91	11.7	10.4	12.6	18.4	41.6	65.7	38.5	45.6	8.85	6.36	9.99
MAX	20	52	31	65	41	152	550	215	609	14	18	28
MIN	2.7	6.8	6.5	5.0	7.8	14	19	14	12	5.5	3.2	3.2
CFSM	.47	.80	.71	.86	1.26	2.85	4.50	2.64	3.12	.61	.44	.68
IN.	.55	.89	.82	.99	1.31	3.28	5.02	3.04	3.49	.70	.50	.76

CAL YR 1982 TOTAL 5242.9 MEAN 14.4 MAX 203 MIN 1.3 CFSM .99 IN. 13.36
WTR YR 1983 TOTAL 8384.6 MEAN 23.0 MAX 609 MIN 2.7 CFSM 1.58 IN. 21.36

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 12...	1015	E5.2	239	8.1	17.0	8.4	87	15	60	<200
JAN 20...	0815	6.9	254	7.0	.0	14.4	96	2.1	130	40
MAR 14...	0700	23	214	6.8	6.0	11.8	96	2.3	>2400	350
MAY 16...	1010	26	199	7.8	20.0	8.4	93	5.8	170	230
JUL 19...	0930	5.0	232	7.9	30.0	7.2	96	4.0	80	70
AUG 09...	1100	5.0	232	8.1	29.5	7.2	--	5.0	50	240
SEP 20...	1030	5.0	260	7.8	23.0	9.9	--	5.9	50	23

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 12...	88	19	9.8	6.8	4.9	45	<.5	28	22	.20
JAN 20...	86	18	10	8.6	6.0	22	--	33	23	.20
MAR 14...	65	14	7.4	5.8	5.8	26	--	34	16	.20
MAY 16...	81	18	8.8	7.3	3.8	24	<.5	36	18	.20
JUL 19...	88	19	9.9	7.9	5.9	47	--	30	21	.30
AUG 09...	85	19	9.2	7.4	5.5	49	--	30	23	.20
SEP 20...	88	19	9.9	7.9	5.2	42	--	32	23	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHATE, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	6.0	147	<.010	<.100	.130	E.75	--	4.00	5.0
JAN 20...	9.7	154	.040	3.20	.190	1.1	4.4	.45	5.7
MAR 14...	7.0	130	.030	2.30	.140	1.8	4.1	.70	7.9
MAY 16...	2.3	129	.040	2.00	.170	1.4	3.4	.77	7.0
JUL 19...	1.8	135	.030	.400	.080	1.1	1.6	--	9.5
AUG 09...	1.5	142	.020	.200	.110	E1.4	--	--	7.2
SEP 20...	7.1	167	.040	.400	.080	.38	.78	--	6.6

01482500 SALEM RIVER AT WOODSTOWN, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)
OCT											
12...	1015	--	--	--	80	3	--	10	40	<1	--
MAY											
16...	1010	--	--	--	50	2	--	<10	30	1	--
SEP											
20...	1030	1400	.3	6.9	--	--	<1	--	--	--	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT											
12...	10	--	5	--	1700	--	3	--	130	--	.1
MAY											
16...	<10	--	4	--	1600	--	13	--	80	--	<.1
SEP											
20...	--	<10	--	<0	--	450	--	<10	--	38	--

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/L AS H	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTALE (UG/L AS SE)	SELENIUM, TOTAL IN BOTTERIAL TERIAL (UG/G)	ZINC, TOTAL RECOVPHENOLS (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MA TOM MATERIAL (UG/G AS ZN)	PHENOLS TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
12...	--	3	--	<1	--	20	--	<1	--	--	--
MAY											
16...	--	9	--	<1	--	30	--	--	--	--	--
SEP											
20...	.01	--	<10	--	<1	--	2	--	15	<1.0	<.1

DATE	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
OCT											
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
16...	--	--	--	--	--	--	--	--	--	--	--
SEP											
20...	1.0	.7	<.1	.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
12...	--	--	--	--	--	--	--	--	--	--
MAY										
16...	--	--	--	--	--	--	--	--	--	--
SEP										
20...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<1.00	<10	<.1

RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, NY, Hydrologic Unit 02040102, near release chamber at Downsville Dam on East Branch Delaware River, and 1.6 mi east of Downsville, NY. DRAINAGE AREA, 371 mi^2. PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 15, 1954. Usable capacity 140,190 mil gal between minimum operating level, elevation, 1,152.0 ft, and crest of spillway, elevation, 1,280.0 ft. Capacity, at crest of spillway 149,700 mil gal; at minimum operating level, 9,609 mil gal; at still of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see Delaware River Basin, diversions), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 154,027 mil gal Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal Dec. 26, 1964, elevation, 1,151.92 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 154,027 mil gal Apr. 5, elevation, 1,282.27 ft; minimum, 70,424 mil gal Dec. 16, elevation, 1,227.42 ft.

01424997 CANNONSVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, NY, Hydrologic Unit 02040101, in emergency gate tower at Cannonsville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville, NY. DRAINAGE AREA, 454 mi^2. PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WRD-NY 1972: 1966. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam; storage began Sept. 30, 1963, usable capacity 95,706 mil gal between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see Delaware River Basin, diversion); is released in Delaware River for downstream low flow augmentation as directed by Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to Jan. 29. 1964. Records furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 108,116 mil gal Mar. 15, 1977, elevation, 1,155.85 ft; minimum observed (after first filling), 11,901 mil gal Nov. 7, 1968, elevation, 1,066.24 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 105,539 mil gal Apr. 26, elevation, 1,154.30 ft; minimum, 18,060 mil gal Nov. 22, elevation, 1,077.13 ft.

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, PA, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, PA, 0.4 mi upstream from highway bridge and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2. PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungaged bedrock spillway at elevation 1,205.00 ft; storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool elevation, 1,125.00 ft capacity, 3,420 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,170 acre-ft June 29, 1973, elevation, 1,138.40 ft; minimum (after first filling), 2,920 acre-ft Sept. 27, 1964, elevation, 1,123.20 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 5,020 acre-ft Apr. 17, elevation, 1,130.28 ft; minimum, 3,000 acre-ft Sept. 21, elevation, 1,123.21 ft.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15,55", Wayne County, PA, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, PA, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi^2. PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft; storage began in October 1959. Capacity at elevation 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft June 19, 1973, elevation 1,017.40 ft; no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,460 acre-ft Apr. 17, elevation, 996.85 ft; no storage Sept. 9-10, minimum elevation, 975.71 ft.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, PA, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, PA, 1.2 mi south of and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi^2. PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam with concrete spillway at elevation 1,176.00 ft in two sections. Spillway equipped with roller gate, 14 ft high on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft, top of gates, is 209,300 acre-ft of which 157,800 acre-ft is controlled storage above elevation 1,160.00 ft, minimum pool. Reservoir is used for generation of hydrolelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 178,200 acre-ft Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft Mar. 28, 1958, elevation, 1,162.60 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 147,940 acre-ft Apr. 25, elevation, 1,188.3 ft; minimum, 93,500 acre-ft Sept. 24-30, elevation, 1,178.5 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville, NY. DRAINAGE AREA, 118 mi^2 excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft.

Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft^3 between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft^3. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 1,461.6 mil ft^3 Mar. 14, 1977, elevation, 1,071.8 ft; minimum (after first filling), -141.4 mil ft^3 Dec. 2, 1938, elevation, 987.5 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,2084 mil ft^3 Mar. 31, Apr. 1, elevation, 1,067.4 ft; minimum, 461.7 mil ft^3 Sept. 29, elevation, 1,041.1 ft.

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake, NY. DRAINAGE AREA, 23.2 mi^2. PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959(M). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft.

Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity, 1,098.2 mil ft^3 between elevations 1,165.0 ft, minimum operating pool, and operating pool, about 26.8 mil ft^3. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 1,171.2 mil ft^3 July 20, 1945, elevation, 1,222.0 ft. minimum observed (after first filling), -26.8 mil ft^3 Nov. 15, 1928, elevation, 1,144.5 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 1,116 mil ft^3 May 31, June 1, elevation, 1,220.5 ft; minimum observed, 214.7 mil ft^3 Oct. 1, elevation, 1,185.2 ft.

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County, NY, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville, NY. DRAINAGE AREA, 6.46 mi^2 excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WRD NY-75-1: 1974(m). Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft.

Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft^3 between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft^3. Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft. Records furnished by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 145.44 mil ft^3 July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft^3 Mar. 16, 1963, elevation, 1,038.0 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 116.5 mil ft^3 June 30, July 1, elevation, 1,038.0 ft, minimum observed, 9.76 mil ft^3 Sept. 29, elevation, 1,048.0 ft.

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, NY, Hydrologic Unit 02040104, at a gate-house at Neversink Dam on Neversink River, and 2 mi southwest of Neversink, NY. DRAINAGE AREA, 91.8 mi^2. PERIOD OF RECORD, June 1953 to current year. Nonrecording gage read daily at 0900. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began June 2, 1953. Usable capacity 34,941 mil gal between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway, 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage belowand outlet sill at elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see Delaware River basin, diversions); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953. Records furnished by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 37,978 mil gal Apr. 25, 1961, elevation, 1,441.67 ft; minimum observed (after first filling), 1,985 mil gal Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 37,514 mil gal Apr. 26, elevation, 1,440.74 ft; minimum observed, 13,522 mil gal Dec. 16, elevation, 1,378.16 ft.

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, PA, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek and 5 mi northwest of White Haven, PA. DRAINAGE AREA, 289 mi^2. PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft; storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft or (conservation pool). Dead storage is 2,000 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft June 26, 1972, elevation, 1,398.20 ft; minimum (after establishment of conservation pool), 981 acre-ft July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 34,890 acre-ft Apr. 17, elevation, 1,389.14 ft; minimum, 1,450 acre-ft June 6, elevation, 1,294.44 ft.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 0.7 mi upstream from Hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10 mi northeast of Palmerton, PA. DRAINAGE AREA, 16.5 mi². PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft; storage began in October 1958. Capacity at elevation 1,000.00 ft is 19,980 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,520 acre-ft Mar. 28, 1978, elevation, 1,000.92 ft; minimum, 176 acre-ft Oct. 6, 1965, elevation, 902.40 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,800 acre-ft Apr. 16, elevation, 1,001.69 ft; minimum, 16,460 acre-ft Dec. 7, elevation, 991.96 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, PA, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, PA, 1.6 mi upstream from mouth, 2.4 mi south of Hatchery, and 7.5 mi northeast of Palmerton, PA. DRAINAGE AREA, 22.2 mi². PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft; storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft May 23, 1942, elevation, 822.93 ft; minimum (after first filling), 2,680 acre-ft Nov. 15, 1966, elevation, 774.10 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,520 acre-ft Apr. 16, elevation, 821.75 ft; minimum, 9,860 acre-ft Oct. 1, elevation, 811.96 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, PA, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi upstream from gaging station on Pohopoco Creek, 0.55 mi upstream from Sawmill Run and 2.3 mi northeast of Parryville, PA. DRAINAGE AREA, 96.3 mi². PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft; storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum (conservation) pool elevation, 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Reservoir is used for recreation, flood control, low flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents 49,730 acre-ft Jan. 29, 1976, elevation, 636.30 ft; minimum, 16,343 acre-ft Jan. 31, Feb 1, 1981, elevation, 591.41 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents 43,030 acre-ft Apr. 26, elevation, 629.83 ft; minimum, 15,110 acre-ft Mar. 31, elevation, 588.79 ft.

01455400 LAKE HOPATCONG.--Lat 40°55'00", long 74°39'50", Morris County, Hydrologic Unit 02040105, in gatehouse of Lake Hopatcong Dam on Musconetcong River at Landing. DRAINAGE AREA, 25.3 mi². PERIOD OF RECORD, February 1887 to current year. Monthend contents only prior to October 1950, published in WSP 1302. REVISED RECORDS, WDR NJ-82-2: Drainage area. GAGE, water-stage recorder. Prior to June 24, 1928, daily readings obtained by measuring from high-water mark to water surface converted to gage height, present datum. Datum of gage is 914.57 ft National Geodetic Vertical Datum of 1929.

Lake is formed by concrete spillway and earthfill dam completed about 1828. Crest of spillway was lowered 0.11 ft in 1925. Usable capacity, 7,459,000,000 gal between (gage height -2.6 ft, sills of gates and 9.00 ft, crest of spillway). Flow regulated by four gates (3 by 5 ft, also by one 24-inch pipe with gate valve to recreation fountain 250 ft downstream from dam. Dead storage, about 8,117,000,000 gal. Figures given herein represent usable capacity. Lake used for recreation.

CORRECTIONS.--Corrected date of the maximum contents and elevation for the period of record are published herein. The extremes for water year 1981 are maximum contents, 8,271,000,000 gal May 16, gage height, 9.96 ft; minimum contents, 4,416,000,000 gal Dec. 30, gage height, 5.14 ft; the previously published figures were for water year 1980.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,777,000,000 gal August 19, 1955 correction, gage height, 10.55 ft; minimum, 1,525,000,000 gal Dec. 29, 1960, gage height, 0.65 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,510,000,000 gal Apr. 17, gage height, 10.24 ft; minimum contents, 3,479,000,000 gal Oct. 18, gage height, 3.82 ft.

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30". Schuylkill County, PA, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi upstream from mouth and 2.3 mi north of Hometown, PA. DRAINAGE AREA, 8.5 mi². PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Water Co.).

Reservoir formed by earth fill dam, with ungated concrete spillway at elevation 1,182.00 ft; storage began in February 1933. Capacity at elevation, 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 and 1951 water years; minimum (after initial filling), 588 acre-ft Dec. 8, 1944, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,560 acre-ft Apr. 16, elevation, 1,182.40 ft; minimum, 7,430 acre-ft Sept. 30, elevation, 1,179.00 ft.

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, PA, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek, 1.0 mi northeast of Blue Marsh, PA, 1.9 mi upstream from Reber's Bridge, and 5.1 mi southeast of Bernville, PA. DRAINAGE AREA, 175 mi². PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft. Storage began April 23, 1979. Capacity at elevation, 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Reservoir is used for flood control, water supply, and recreation. Figures herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 39,480 acre-ft Apr. 16, 1983, elevation, 301.65 ft; minimum, 17,440 acre-ft Nov. 28, 1983 elevation, 284.49 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 39,480 acre-ft Apr. 16, elevation, 301.65 ft; minimum, 17,440 acre-ft Nov. 28, elevation, 284.49 ft.

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, PA, Hydrologic Unit 02040203, at dam on Perkiomen Creek at Green Lane, PA, 0.4 mi west of Green Lane and 2.1 mi upstream from Unami Creek. DRAINAGE AREA, 70.9 mi^2. PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft; storage began December 21, 1956. Capacity at spillway level, elevation 286.00 ft, 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft June 23, 1972, elevation, 290.05 ft; minimum (after first filling), 1,270 acre-ft Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 14,720 acre-ft Apr. 15, elevation, 287.46 ft; minimum, 10,760 acre-ft Sept. 30, elevation, 282.60 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million gallons)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01416900 PEPACTON RESERVOIR ‡			01424997 CANNONSVILLE RESERVIOR ‡			01428900 PROMPTON RESERVOIR †		
Sept. 30	1,257.39	111,335	-	1,109.29	45,642	-	1,125.24	3,570	-
Oct. 31	1,243.07	90,332	-1,049	1,085.96	24,166	-1,072	1,125.22	3,560	-.2
Nov. 30	1,229.78	73,226	-882	1,079.72	19,728	-229	1,125.49	3,690	+1.3
Dec. 31	1,229.58	72,986	-12.0	1,094.27	30,924	+559	1,125.75	3,710	+1.1
CAL YR 1982	-	-	-40.9	-	-	-100	-	-	-4.8
Jan. 31	1,230.80	74,458	+73.5	1,101.73	37,896	+348	1,125.23	3,560	-2.4
Feb. 29	1,240.77	87,197	+704	1,116.02	53,139	+842	1,125.39	3,610	+.9
Mar. 31	1,260.20	115,773	+1,426	1,132.76	73,912	+1,037	1,124.93	3,760	+2.4
Apr. 30	1,281.16	151,950	+1,866	1,153.15	103,688	+1,536	1,127.40	4,170	+6.9
May 31	1,279.53	148,935	-150	1,151.21	100,565	-156	1,126.01	3,780	-6.3
June 30	1,277.69	145,573	-173	1,149.22	97,431	-162	1,126.24	3,850	+1.2
July 31	1,269.90	131,833	-686	1,140.99	85,216	-610	1,124.33	3,310	-8.8
Aug. 31	1,261.42	117,729	-704	1,124.20	62,911	-1,113	1,123.43	3,060	-4.1
Sept. 30	1,252.33	103,600	-729	1,111.61	48,179	-760	1,123.34	3,040	-.3
WTR YR 1983	-	-	-32.8	-	-	+10.8	-	-	-.7

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft^3/s)
	01429400 GENERAL EDGAR JADWIN RESERVOIR †			01431700 LAKE WALLENPAUPACK †			01433000 SWINGING BRDIGE RESERVOIR †		
Sept. 30	989.46	550	-	1,180.90	106,500	-	1,060.8	1,038	-
Oct. 31	989.46	550	0	1,179.60	99,440	-114.8	1,059.8	1,003	-13.0
Nov. 30	989.46	550	0	1,180.40	103,760	+72.6	1,061.8	1,074	+27.2
Dec. 31	989.46	550	0	1,181.10	107,550	+61.6	1,061.5	1,063	-4.0
CAL YR 1982	-	-	0	-	-	+38.7	-	-	+2.0
Jan. 31	989.46	550	0	1,180.60	104,840	-44.1	1,062.5	1,099	+13.4
Feb. 29	989.46	550	0	1,181.90	111,950	+128.0	1,056.8	902	-81.2
Mar. 31	989.46	550	0	1,183.30	119,680	+125.7	1,067.4	1,284	+142
Apr. 30	989.46	550	0	1,187.40	142,780	+388.4	1,066.0	1,229	-24.8
May 31	989.46	550	0	1,187.10	141,070	-27.8	1,065.4	1,206	-8.5
June 30	989.46	550	0	1,185.70	133,120	-133.6	1,065.0	1,191	-5.9
July 31	989.46	550	0	1,181.40	109,200	-389.0	1,062.4	1,095	-35.8
Aug. 31	975.99	0	-8.9	1,180.50	104,300	-79.7	1,060.8	1,038	-21.3
Sept. 30	975.85	0	0	1,178.50	93,500	-181.5	1,041.1	462	-222
WTR YR 1983	-	-	-.8	-	-	-17.9	-	-	-18.3

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (million cu ft)	Change in contents (equivalent in ft³/s)
	01433100	TORONTO RESERVOIR †		01433200	CLIFF LAKE	RESERVOIR †	01435900	NEVERSINK	RESERVOIR †
Sept. 30	1,185.2	215	-	1,060.9	58.8	-	1,411.56	24,628	-
Oct. 31	1,185.3	216	+.6	1,059.8	52.9	-2.2	1,399.09	20,024	-230
Nov. 30	1,185.8	225	+3.2	1,061.7	63.4	+4.0	1,383.48	15,026	-258
Dec. 31	1,187.5	258	+10.8	1,061.6	62.8	-.2	1,381.77	14,531	-24.7
CAL YR 1982	-	-	-2.1	-	-	+.3	-	-	-20.6
Jan. 31	1,191.5	327	+27.4	1,062.8	67.5	+1.8	1,387.03	16,088	+77.7
Feb. 29	1,197.1	487	+49.6	1,056.8	38.9	-11.8	1,397.23	19,383	+182
Mar. 31	1,205.8	666	+81.6	1,067.8	103	+23.9	1,421.78	28,792	+470
Apr. 30	1,218.0	1,029	+140	1,067.2	98.6	-1.7	1,440.42	37,355	+442
May 31	1,220.5	1,116	+32.7	1,066.3	92.3	-2.4	1,439.69	36,993	-18.1
June 30	1,217.0	995	-45.9	1,069.6	116	+9.3	1,430.67	32,706	-221
July 31	1,209.4	764	-86.1	1,065.3	85.6	-11.5	1,419.70	27,917	-239
Aug. 31	1,196.3	429	-125	1,066.3	92.3	+2.5	1,410.65	24,279	-182
Sept. 30	1,196.0	422	-2.6	1,048.0	9.8	-31.8	1,401.87	21,005	-169
WTR YR 1983	-	-	+6.6	-	-	-1.6	-	-	-15.4

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01447780	FRANCIS E. WALTER LAKE †		01449400	PENN FOREST	RESERVOIR †	01449700	WILD CREEK	RESERVOIR †
Sept. 30	1,304.08	2,409	-	999.58	19,790	-	811.69	9,790	-
Oct. 31	1,299.97	2,000	-6.7	994.02	17,320	-40.2	815.29	10,780	+16.1
Nov. 30	1,301.57	2,160	+2.7	992.12	16,530	-13.3	815.29	10,780	0
Dec. 31	1,300.95	2,100	-1.0	992.52	16,690	+2.6	814.09	10,450	-5.4
CAL YR 1982	-	-	-26.9	-	-	+5.6	-	-	-.4
Jan. 31	1,299.42	1,940	-2.6	993.00	16,890	+3.3	815.55	10,860	+6.7
Feb. 29	1,299.19	1,910	-.5	1,000.12	20,050	+56.9	816.40	11,090	+4.1
Mar. 31	1,303.50	2,350	+7.2	1,000.39	20,210	2.6	820.37	12,110	+16.6
Apr. 30	1,331.18	6,650	+72.3	1,000.48	20,260	+.8	820.57	12,170	+1.0
May 31	1,301.09	2,110	-73.8	1,000.27	20,140	-2.0	820.26	12,080	-1.5
June 30	1,318.83	4,320	+37.1	1,000.28	20,140	0	820.15	12,040	-.7
July 31	1,301.90	2,190	-34.6	999.72	19,850	-4.7	817.11	11,280	-12.4
Aug. 31	1,299.73	1,970	-3.6	999.52	19,760	-1.5	815.26	10,770	-8.3
Sept. 30	1,300.16	2,020	+.8	993.60	17,140	-44.0	815.27	10,770	0
WTR YR 1983	-	-	-.5	-	-	-3.7	-	-	+1.4

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)	Gage Height (feet)	Contents (million gallons)	Change in contents (equivalent in ft³/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft³/s)
	01449790	BELTZVILLE LAKE †		01455400	LAKE HOPATCONG †		01469200	STILL CREEK	RESERVOIR †
Sept. 30	623.04	36,730	-	6.60	5,521	-	1,181.40	8,110	-
Oct. 31	589.99	15,660	-342.7	a4.06	3,644	-93.7	1,180.60	7,880	-3.7
Nov. 30	590.06	15,680	+.5	3.95	3,658	+.7	1,180.30	7,790	-1.5
Dec. 31	589.89	15,610	-1.3	a4.96	3,568	-4.5	1,181.30	8,080	+4.7
CAL YR 1982	-	-	-35.6	-	-	-12.1	-	-	+.6
Jan. 31	589.55	15,450	-2.6	a4.96	4,284	+35.7	1,181.90	8,260	+2.9
Feb. 29	589.24	15,310	-2.5	a6.36	5,334	+58.0	1,182.10	8,320	+1.1
Mar. 31	588.97	15,190	-2.0	a9.60	7,964	+131.2	1,182.20	8,350	+.5
Apr. 30	628.35	41,580	+443.5	a9.66	8,015	+2.6	1,182.90	8,560	+3.5
May 31	628.18	41,420	-2.6	9.61	7,972	-2.2	1,182.20	8,350	-3.4
June 30	628.25	41,490	+1.2	9.26	7,677	-15.2	1,182.50	8,440	+1.5
July 31	628.07	41,320	-2.8	a8.98	7,442	-11.7	1,182.20	8,350	-1.5
Aug. 31	627.67	40,940	-6.2	9.04	7,493	+2.5	1,180.10	7,730	-10.1
Sept. 30	625.60	38,990	-32.8	8.77	7,268	-11.6	1,179.00	7,430	-5.0
WTR YR 1983	-	-	-13.1	-	-	+7.4	-	-	-.9

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (area-feet)	Change in contents (equivalent in ft^3/s)
	01470870	BLUE MARSH LAKE †		01472200	GREEN LANE RESERVOIR †	
Sept. 30	289.96	22,850	-	285.25	12,770	-
Oct. 31	284.92	17,550	-86.2	284.33	12,000	-12.5
Nov. 30	285.08	17,700	+2.5	285.99	13,420	+23.9
Dec. 31	284.96	17,580	-2.0	285.90	13,340	-1.3
CAL YR 1982	-	-	-7.6	-	-	+.8
Jan. 31	285.23	17,850	+4.4	286.04	13,470	+2.1
Feb. 29	285.00	17,620	-4.1	286.06	13,490	+.4
Mar. 31	284.88	17,510	-1.8	286.12	13,540	+.8
Apr. 30	290.07	22,980	+91.9	286.16	13,570	+.5
May 31	289.87	22,750	-3.7	286.10	13,520	-.8
June 30	290.20	23,130	+6.4	285.97	13,410	-1.8
July 31	290.03	22,930	-3.3	285.23	12,750	-10.7
Aug. 31	290.20	23,130	+3.3	284.19	11,900	-13.8
Sept. 30	290.16	23,080	-.8	282.60	10,760	-19.2
WTR YR 1983	-	-	+.3	-	-	-2.8

‡ Elevation at 0900 hours on first day of following month.
† Elevation or gage height at 2400 hours.
a Observed.
e Estimated.
* Elevation at 0900 hours.

DIVERSIONS AND WITHDRAWALS

WITHDRAWALS FROM THE DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir, NY, on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 6, 1955. Records furnished by Board of Water Supply and Department of Water Resources, city of New York. REVISIONS (Water Years).--WRD-NY 1972: 1970.
REVISED RECORDS.--WRD NY-71: 1970. WRD NY-72: 1970. WDR NY-82: 1980.

01423900 Diversion from Cannonsville Reservoir, NY, on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Jan. 29, 1964. Records furnished by Board of Water Supply, city of New York.
REVISED RECORDS.--WDR NJ-82-2: 1980.

01435800 Diversion from Neversink Reservoir, NY, on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of city of New York. No diversion prior to Dec. 3, 1953. Records furnished by Board of Water Supply and Department of Water Resources, city of New York.
REVISED RECORDS.--WDR NJ-82-2: 1976, 1977.

01436520 Village of Woodridge, NY, diverts water from East Pond Reservoir, tributary to Neversink River, for municipal supply outside of basin. Records furnished by village of Woodridge.

01437360 Diversion from Bear Swamp Reservoir, NY, tributary to Neversink River, by the New York State Training School, Otisville, NY, for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01447750 Diversion from Bear Creek, PA, tributary to Lehigh River, by Bear Creek Gas and Water Company for water supply outside of basin. Records furnished by Delaware River Basin Commission.

01448830 Diversion from Hazle Creek Watershed by Hazelton Joint Sewerage Authority for municipal water supply. Waste effluent from the municipal water system is released to the Susquehanna River. Records furnished by Delaware River Basin Commission.

01460500 Diversion by Delaware and Raritan Canal from Delaware River at Raven Rock, for municipal and industrial use. Water is discharged into the Raritan River at New Brunswick. Records of discharge are collected on the Delaware and Raritan Canal at Kingston, (see station 01460500).
REVISED RECORDS.--WDR NJ-82-2: 1981.

WITHDRAWALS BY CITY OF NEW YORK

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	PEPACTON RESERVOIR 01415200	CANNONSVILLE RESERVOIR 01423900	NEVERSINK RESERVOIR 01435800
October	728	181	189
November	767	299	375
December	637	9.53	241
CAL YR 1982	479	238	184
January	497	150	149
February	176	131	141
March	0	219	30
April	0	0.36	104
May	489	0.55	338
June	432	175	449
July	690	291	261
August	697	305	176
September	697	3.46	149
WTR YR 1983	487	147	217

DIVERSIONS AND WITHDRAWALS--Continued

MISCELLANEOUS WITHDRAWALS FROM BASIN

	EAST POND RESERVOIR [a]01436520	BEAR SWAMP RESERVOIR *01437360	BEAR CREEK 01447750	HAZLE CREEK ‡01448830	DELAWARE & RARITAN CANAL 01460500
October		DATA NOT	0	DATA NOT	57.7
November		AVAILABLE	0	AVAILABLE	83.5
December			0		101
CAL YR 1982			1.7		50
January			0		98.6
February			0		97.0
March			14.6		95.2
April			7.93		91.6
May			0		72.7
June			0		62.2
July			0		18.7
August			0		24.2
September			0		26.3
WTR YR 1983			1.9		68.9

[a] Village of Woodridge has estimated that virtually all the withdrawal from East Pond Reservoir was returned to the Neversink River.

* Data not available this year but, from past records, monthly withdrawal is approximately 0.5 ft^3/s.

‡ Data not available this year but, from past records, monthly withdrawal is approximately 4 ft^3/s.

DIVERSIONS WITHIN THE DELAWARE RIVER BASIN

01463480 Diversion from the Delaware River at the Morrisville Filtration Plant for municipal supply, by the Borough of Morrisville, PA. The water withdrawn at this site is returned to the basin after treatment, only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Borough of Morrisville, PA.

01463490 Diversion from the Delaware River just above the Trenton gaging station for municipal supply by the city of Trenton, NJ. The water being withdrawn is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the City of Trenton.
REVISED RECORDS.--WDR NJ-82-2: Station number.

01467030 Diversion from the Delaware River at the Torresdale Intake for municipal supply, by the City of Philadelphia, PA. The water being withdrawn at this intake is returned to the basin after treatment only slightly diminished by consumptive uses and losses in transmission. Records furnished by the Delaware River Basin Commission.

01474500 Diversion from the Schuylkill River at the Belmont and Queen Lanes Intakes for municipal supply, by the City of Philadelphia, PA. The water being withdrawn at these intakes is returned after treatment within the Delaware River basin only slightly diminished by consumptive uses and lossesmission. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	WITHDRAWAL BOROUGH OF MORRISVILLE 01463480	WITHDRAWAL CITY OF TRENTON 01463490	WITHDRAWAL CITY OF PHILADELPHIA		
			DELAWARE RIVER TORRESDALE 01467030	SCHUYLKILL RIVER 01474500	
				BELMONT	QUEEN LANE
October	5.07	46.0	308	91.3	148
November	5.05	45.2	292	92.8	136
December	5.95	45.9	294	94.4	124
CAL YR 1982	5.86	50.9	299	95.5	157
January	4.96	46.8	297	92.8	114
February	5.74	47.1	297	91.3	114
March	6.36	46.0	278	91.3	133
April	5.54	45.2	240	89.7	158
May	5.15	46.6	252	95.9	167
June	7.06	77.4	295	104	184
July	5.27	57.6	351	114	200
August	5.83	55.7	337	111	178
September	7.45	52.2	337	101	166
WTR YR 1983	5.79	51.0	298	97.5	152

DIVERSIONS IMPORTED INTO BASIN

01367630 Water diverted from Morris Lake, tributary to the Wallkill River (Hudson River basin), by the Newton Water and Sewer Authority for municipal use. After use the water is released into the Paulins Kill (Delaware River basin). Records furnished by the Delaware River Basin Commission.

01578420 Water diverted from West Branch Octoraro Creek (Susquehanna River basin) at the McCray Plant of the Octoraro Water Co., for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

01578450 Water divered from Octoraro Lake (Susquehanna River basin) by Chester Water Authority for municipal use. After use the water is released into the Delaware River basin. Records furnished by the Delaware River Basin Commission.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Month	MORRIS LAKE 01367630	OCTORARO CREEK	
		OCTORARO WATER CO. 01578420	CHESTER WATER AUTHORITY 01578450
October	1.31	1.88	42.1
November	1.41	1.82	43.0
December	1.51	1.61	42.1
CAL YR 1982	1.4	1.8	43.1
January	1.51	1.61	41.5
February	1.58	1.69	39.2
March	1.51	1.79	37.0
April	1.38	1.60	37.4
May	1.39	1.69	37.9
June	1.56	1.80	40.7
July	1.50	1.92	42.6
August	1.46	1.90	45.3
September	1.42	1.82	45.2
WTR YR 1983	1.5	1.8	41.2

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1983

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Maurice River basin				
01411450	Still Run at Aura, NJ	Lat 39°40'23", long 75°07'50", Gloucester County, at bridge on Aura-Glassboro Road, 0.4 mi east of Aura, 1.0 mi upstream of Silver Lake, and 2.6 mi southeast of Glassboro.	3.21	1966, 1976-83	8-17-83	.94
01411456	Little Ease Run near Clayton, NJ	Lat 39°39'32", long 75°04'04", Gloucester County, at bridge on Academy Road, 0.9 mi west of Fries Mill, 1.3 mi east of Clayton, and 1.4 mi downstream from Beaverdam Branch.	9.77	1966, 1976-83	6-17-83 8-17-83	5.0 1.3
01411462	Scotland Run at Franklinville, NJ	Lat 39°37'05", long 75°03'36", Gloucester County, at bridge on State Route 538, 0.9 mi east of Franklinville, 2.7 mi upstream of Malaga Lake, and 2.8 mi southeast of Clayton.	14.8	1976-83	6-17-83 8-17-83	17 7.4
01411700	Muddy Run at Centerton, NJ	Lat 39°31'28", long 75°10'09", Salem County, 180 ft downstream of unnamed right bank tributary, 200 ft downstream of bridge on State Routes 540 and 553 in Centerton, and 4.7 mi south of Elmer.	36.5	1976-83	6-17-83 8-17-83	31 18
01411950	Buckshutem Creek near Laurel Lake, NJ	Lat 39°20'51", long 75°03'47", Cumberland County, at bridge on State Route 555 (Dividing Creek Road), 1.3 mi upstream of Gravelly Run, 1.8 mi west of Laurel Lake, and 3.6 mi southwest of Millville.	12.9	1976-77, 1980-83	6-17-83 8-17-83	7.7 10
01412120	Muskee Creek near Port Elizabeth, NJ	Lat 39°18'56", long 74°57'31", Cumberland County, at bridge on State Route 548, 1.3 mi east of Port Elizabeth, 1.9 mi upstream from mouth, and 2.8 mi northeast of Mauricetown.	13.1	1969, 1976-83	6-16-83 8-16-83	36 16
		Cohansey River basin				
01412405	Cohansey River near Beals Mill, NJ	Lat 39°31'29", long 75°15'59", Cumberland County, at bridge on Beals Mill Road, 1,300 ft downstream of Beals Mill and Bostwick Lake, and 1.6 mi west of Deerfield Street.	9.44	1976-83	6-16-83 8-16-83	7.6 4.7
01413010	Barrett Run near Bridgeton, NJ	Lat 39°26'58", long 75°15'42", Cumberland County, at bridge on Mary Elmer Drive, 1,800 ft upstream from Mary Elmer Lake, and 2.1 mi northwest of the intersection of State Routes 49 and 77 in Bridgeton.	7.02	1966, 1976-83	8-16-83	3.2
01413020	Indian Fields Branch at Bridgeton, NJ	Lat 39°26'04", long 75°13'08", Cumberland County, at bridge on Manheim Avenue in Bridgeton, 1,300 ft upstream of East Lake.	4.64	1976-83	6-16-83 8-16-83	8.0 6.0

Discharge measurements made at low-flow partial-record stations during water year 1983--Continued

Station number	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (ft³/s)
		Stow Creek basin				
01413080	Raccoon Ditch at Davis Mill, NJ	Lat 39°25'26", long 75°22'01" Cumberland County, at bridge on County Highway 90 at Davis Mill, 2.8 mi upstream from mouth, and 4.3 mi southwest of Shiloh.	3.19	1976-78, 1980-83	6-17-83	4.5
		Delaware River basin				
01443475	Trout Brook near Middleville, NJ	Lat 41°03'03", long 74°51'23", Sussex County, at bridge on County Highway 612, 0.4 mi upstream from mouth, 0.5 mi southeast of Middleville, and 5.1 mi west of Newton.	24.0	1979-83	6-16-83 8-16-83	32 14
01445800	Honey Run near Ramseyburg, NJ	Lat 40°53'44", long 75°01'04", Warren County, at bridge on Hope-Delaware Road, 2.3 mi northeast of Ramseyburg, 2.8 mi southwest of Hope, and 3.1 mi upstream from mouth.	2.21	1981-83	6-17-83 8-17-83	1.2 .32
01455230	Merrill Creek at Coopersville, NJ	Lat 40°42'25", long 75°06'54", Warren County, at bridge on Lows Hollow Road at Coopersville, 0.9 mi north of Stewartsville, 2.1 mi upstream from mouth, and 3.3 mi east of Phillipsburg.	3.85	1981-83	6-16-83 8-17-83	5.3 5.8
01455300	Pohatcong Creek at Carpentersville, NJ	Lat 40°37'30", long 75°11'10", Warren County, at bridge on on Carpentersville-Riegelsville Road, 2,000 ft above mouth, and 0.7 mi south of Carpentersville.	57.0 (Revised)	1978-81, 1983	12-23-82	28
01455780	Lubbers Run at Lockwood, NJ	Lat 40°55'36", long 74°43'09", Sussex County, at bridge on U.S. Route 206 at Lockwood, 1.0 mi upstream from mouth, and 1.5 mi northwest of Stanhope.	16.3	1982-83	6-16-83 8-16-83	19 10
01461300	Wickecheoke Creek at Stockton, NJ	Lat 40°24'41", long 74°58'13", Hunterdon County, at bridge on State Route 29 at Stockton, and 900 ft upstream from mouth.	26.6	1977-83	1-07-83	29
*01464530	Blacks Creek at Mansfield Square, NJ	Lat 40°07'02", long 74°41'58", Burlington County, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi east of Mansfield Square, and 3.4 mi upstream from mouth.	19.7	1966-72, 1983	1-04-83	11
*01465880	Southwest Branch Rancocas Creek at Medford, NJ	Lat 39°53'45", long 74°49'26", Burlington County, at bridge on State Route 541, 0.4 mi south of Medford, and 0.7 mi downstream from Haynes Creek.	47.2 (Revised)	1961-66, 1973, 1983	12-10-82 3-10-83	41 270
01465884	Sharps Run at Route 541 at Medford, NJ	Lat 39°54'18", long 74°49'30", Burlington County, at bridge on Route 541 (Argonne Highway) in Medford, 0.7 mi upstream from mouth, 1.2 mi northeast of Oliphants Mills, and 2.6 mi northwest of Medford Lakes.	4.41	1982-83	6-17-83 8-17-83	.73 .43
01465898	Little Creek near Lumberton, NJ	Lat 39°56'16", long 74°47'38", Burlington County, at bridge on Eayrestown Road, 0.6 mi upstream from mouth, 1.9 mi southeast of Lumberton, and 3.0 mi northeast of Medford.	19.2	1982-83	6-17-83 8-17-83	4.9 2.7

Discharge measurements made at low-flow partial-record stations during water year 1983--Continued

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin--Continued				
*01467057	Pompeston Creek at Cinnaminson, NJ	Lat 40°00'11", long 74°59'00", Burlington County, at bridge on U.S. Route 130, 0.7 mi northwest of Cinnaminson, 1.7 mi upstream from, and 2.1 mi east of Palmyra.	5.77 (Revised)	1964-72, 1983	3-10-83 5-24-83	42 85
*01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 mi west of Marlton, and 5.7 mi southwest of Moorestown.	5.34	1964-69, 1971-72, 1983	12-10-82	5.1
01467317	South Branch Newton Creek at 13th Avenue, at Haddon Heights, NJ	Lat 39°52'45", long 75°04'26", Camden County, at bridge on 13th Avenue in Haddon Heights, 2.4 mi southwest of Haddonfield, and 2.6 mi south of Collingswood.	0.63	1964-68, 1971,77, 1982-83	12-13-82	2.7
01483010	Deep Run near Alloway, NJ	Lat 39°32'34", long 75°21'18", Salem County, at bridge on Telegraph Road, 0.8 mi upstream from Elkinton Mill Pond, 1.3 mi south of Alloway, and 2.5 mi northwest of Pecks Corner.	5.30	1979-83	6-16-83 8-16-83	5.6 3.1

* Also a crest-stage partial-record station.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower stages may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined. The gage heights are heights on the upstream side of the bridge, above the dam or at the discontinued continuous-record gaging station unless otherwise noted.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Cohansey River basin					
01412500	West Branch Cohansey River at Seeley, NJ	Lat 39°29'06, long 75°15'33", Cumberland County, on right bank 15 ft upstream from county bridge, Highway 31, at Seeley, 450 ft upstream from mouth and 4.1 mi northwest of Bridgeton. Datum of gage is 42.23 ft National Geodetic Vertical Datum of 1929.	2.58	1952-67‡, 1968-83	6-20-83	11.17	885
		Delaware River basin					
*01445000	Pequest River at Huntsville, NJ	Lat 40°58'52", long 74°46'36", Sussex County, on right bank, 20 ft upstream from highway bridge in Huntsville, and 0.4 mi downstream from East Branch. Datum of gage is 553.81 ft National Geodetic Vertical Datum of 1929.	31.0	1940-62‡, 1963-83	4-16-83	4.78	505
01445430	Pequest River at Townsbury, NJ	Lat 40°51'06", long 74°56'02", Warren County, upstream of highway bridge in Townsbury, 2.8 mi northeast of Pequest and 8.7 mi west of Hackettstown. Altitude of gage is 480 ft, from topographic map.	92.5	1977-80‡, 1981-83	4-16-83	4.71	2,100
*01446000	Beaver Brook near Belvidere, NJ	Lat 40°50'40", long 75°02'48, Warren County, on right bank, 2,000 ft upstream from mouth, and 2 mi east Belvidere. Datum of gage is 303.36 ft National Geodetic Vertical Datum of 1929.	36.7	1922-61‡, 1963-83	4-16-83	4.83	1,030
*0145520	Pohatcong Creek at New Village, NJ	Lat 40°42'57", long 75°04'20", Warren County, at bridge on Edison Road, 0.4 mi southeast of New Village, and 4.3 mi upstream from Merrill Creek. Datum of gage is 308.32 ft National Geodetic Vertical Datum of 1929.	33.3	1960-69‡, 1970-83	4-16-83	5.60	1,300
01455500	Musconetcong River at outlet of Lake Hopatcong, NJ	Lat 40°55'00", long 74°39'55", Morris County, on left bank just upstream of highway bridge 300 ft downstream from Lake Hopatcong Dam in Landing. Datum of gage is 904.99 ft National Geodetic Vertical Datum of 1929.	25.3	1929-75‡, 1976-83	4-16-83	4.00	330

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--CONTINUED

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Delaware River basin--Continued					
01456000	Musconetcong River near Hackettstown, NJ	Lat 40°53'17", long 74°47'53" Warren County, on right bank 75 ft upstream from Saxton Falls Dam, 0.5 mi upstream from Erie-Lackawanna Railway bridge, and 3.0 mi northeast of Hackettstown. Datum of gage is 630.93 ft National Geodetic Vertical Datum of 1929.	68.9	1921-73‡, 1974-83	4-16-83	3.30	1,500
01457500	Delaware River at Riegelsville, NJ	Lat 40°35'36", long 75°11'17", Warren County, just upstream of suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River (flow of which is included in the records for this station since Oct. 1, 1931). Datum of gage is 125.12 ft National Geodetic Vertical Datum of 1929.	6,328	1906-71‡, 1972-83	4-17-83	24.17	137,000
01463610	Assunpink Creek at Edinburg, NJ	Lat 40°15'28", long 74°37'05", Mercer County, on left bank, downstream side of bridge on Old Trenton Road (Route 535), 0.1 mi west of Edinburg, 0.1 mi upstream from Bridegroom Run and 3.0 mi north of Robbinsville. Datum of gage is 63.46 ft National Geodetic Vertical Datum of 1929.	25.0	1979-83	4-16-83	e<6.35	f
01464400	Crosswicks Creek at New Egypt, NJ	Lat 40°04'03", long 74°31'57", Ocean County, at upstream side of bridge on State Route 528 in New Egypt, and 300 ft downstream from Oakford Lake Dam. Datum of gage is 43.46 ft National Geodetic Vertical Datum of 1929.	41.2	1968-83	4-17-83	20.69	880
01464515	Doctors Creek at Allentown, NJ	Lat 40°10'37", long 74°35'57", Monmouth County, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond dam. Datum of gage is 50.98 National Geodetic Vertical Datum of 1929.	17.4	1968-83	6-21-83	b6.02	630
01464530	Blacks Creek at Mansfield Square, NJ	Lat 40°07'02", long 74°41'58", Burlington County, at bridge on Mansfield Square-Crosswicks Road, 0.4 mi east of Mansfield Square, and 3.4 mi upstream from mouth. Datum of gage is 12.44 ft National Geodetic Vertical Datum of 1929.	19.7	1978-83	4-17-83	b8.65	910
01464538	Crafts Creek at Columbus, NJ	Lat 40°04'44", long 74°43'07", Burlington County, at bridge on Columbus-Mansfield road, 0.4 mi north of Columbus, and 6.0 mi northeast of Mount Holly. Datum of gage is 33.71 ft National Geodetic Vertical Datum of 1929.	5.38	1978-83	4-17-83	b7.31	252

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Delaware River basin--Continued					
01464582	Assiscunk Creek near Columbus, NJ	Lat 40°03'13", long 74°44'34", Burlington County, at bridge on Petticoat Bridge Road, 1.7 mi southwest of Columbus, 4.0 mi northeast of Mount Holly, and 0.1 mi downstream from Assiscunk Branch.	10.9	1978-83	4-17-83	b6.59	370
01465850	South Branch Rancocas Creek at Vincentown, NJ	Lat 39°56'22", long 74°45'50", Burlington County, on left bank 150 ft downstream from highway bridge on Lumberton-Vincentown road, 0.8 mi west of Vincentown, 2.9 mi southeast of Lumberton, and 3.1 mi upstream from Southwest Branch. Datum of gage is 13.17 ft National Geodetic Vertical Datum of 1929.	64.5	1962-75‡, 1976-83	4-17-83	6.98	850
*01465880	Southwest Branch Rancocas Creek at Medford, NJ	Lat 39°53'43", long 74°49'26", Burlington County, at bridge on Argonne Highway (State Route 541), 0.6 mi south of intersection of Argonne Highway and State Highway 70 at Medford, and 5.3 mi upstream from mouth.	47.2	1983	4-17-83	12.05	750
01467057	Pompeston Creek at Cinnaminson, NJ	Lat 40°00'11", long 74°59'00", Burlington County, at U.S. Route 130 bridge, 0.7 mi northwest of Cinnaminson, 1.7 mi upstream from mouth, and 2.1 mi east of Palmyra. Datum of gage is 11.36 ft National Geodetic Vertical Datum of 1929.	5.77	1975-83	4-24-83	b5.11	758
01467069	North Branch Pennsauken Creek near Moorestown, NJ	Lat 39°57'07", revised, long 74°58'10", Burlington County, at bridge on Route 41 (Kings Highway), and 1.7 mi southwest of Moorestown. Datum of gage is 5.9 ft National Geodetic Vertical Datum of 1929.	12.8	1975-83	4-16-83	6.02	950
*01467160	North Branch Cooper River near Marlton, NJ	Lat 39°53'20", long 74°58'08", Camden County, at bridge on blacktop road to Springdale, 2.5 mi west of Marlton. Datum of gage is 36.36 ft National Geodetic Vertical Datum of 1929.	5.34	1964-83	4-16-83	b3.80	480
*01467305	Newton Creek at Collingswood, NJ	Lat 39°54'30", long 75°03'13", Camden County, at bridge on Park Avenue in Collingswood, 0.3 mi east of Cuthbert Avenue. Datum of gage is 18.74 ft National Geodetic Vertical Datum of 1929.	1.33	1964-83	4-24-83	2.98	138
01467317	South Branch Newton Creek at Haddon Heights, NJ	Lat 39°52'45", long 75°04'26", Camden County, at bridge on Haddon Heights Park in Haddon Heights, and 2.6 mi south of Collingswood. Datum of gage is 23.34 ft National Geodetic Vertical Datum of 1929.	0.63	1964-83	6-21-83	2.65	20

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Delaware River basin--Continued					
*01467330	South Branch Big Timber Creek at Blackwood, NJ	Lat 39°48'17", long 75°04'33", Camden County, at bridge on Lower Landing Road, in Blackwood, and 3.0 mi upstream from mouth. Datum of gage is 8.41 ft National Geodetic Vertical Datum of 1929.	20.9	1964-83	4-16-83	b4.47	440
01467351	North Branch Big Timber Creek at Laurel Road at Laurel Springs, NJ	Lat 39°49'07", long 75°00'56", Camden County, at bridge on Laurel Road in Laurel Springs, and 2.5 mi upstream from confluence with the South Branch. Datum of gage is 26.89 ft National Geodetic Vertical Datum of 1929.	7.17	1975-83	4-16-83	1.79	300
01475000	Mantua Creek at Pitman, NJ	Lat 39°44'14", long 75°06'53 Gloucester County, on left abutment of Wadsworth Dam, 0.9 mi east of Pitman, and 2.0 mi upstream from Porch Branch. Datum of gage is 68.51 ft National Geodetic Vertical Datum of 1929.	6.05	1940-76‡, 1977-83	4-16-83	1.92	170
01475019	Mantua Creek at Salina, NJ	Lat 39°46'13", long 75°07'59", Gloucester County, at bridge on Salina-Sewell Road, 0.2 mi downstream of Bees Branch, and 0.5 mi west of Salina. Datum of gage is 11.67 ft National Geodetic Vertical Datum of 1929.	14.1	1975-83	4-16-83	6.75	470
01477110	Raccoon Creek at Mullica Hill, NJ	Lat 39°44'10", long 75°13'30", Gloucester County, at bridge on State Routes 45 and 77 in Mullica Hill, 1,200 ft downstream of Mullica Hill Pond, and 5.5 mi west of Pitman. Datum of gage is 21.91 ft National Geodetic Vertical Datum of 1929.	15.6	1978-83	4-16-83	b5.38	1,560
01477480	Oldmans Creek near Harrisonville, NJ	Lat 39°41'20", revised, long 75°18'38", Salem County, at bridge on Harrisonville Station Road, 2.4 mi west of Harrisonville, and 2.8 mi north of Woodstown. Datum of gage is 16.58 ft National Geodetic Vertical Datum of 1929.	13.8	1975-83	4-16-83	6.28	720

*	Also a low-flow partial-record station.
**	Also a tidal crest-stage station.
†	Discharge not determined.
‡	Operated as a continuous-record gaging station.
a	Estimated.
b	Downstream side of bridge.
c	Not previously published.
d	Revised.
e	Peak did not reach bottom of gage.
f	Peak discharge for the period was less than the minimum recordable discharge.

DISCHARGE MEASUREMENT AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1983

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Delaware River basin				
01446400 Pequest River	Delaware River	Lat 40°49'45", long 75°04'44", Warren County, at bridge on State Route 519, in Belvidere, 1,400 ft upstream of mouth.	157	1950,53, 1955,74, 1977-82	11-30-82 2-22-83 4-17-83 4-18-83 5-19-84 8-02-83	249 311 2,130 2,230 302 93
01455801 Musconetcong River	Delaware River	Lat 40°55'10", long 74°44'07", Sussex County, at bridge at Lockwood, 0.2 mi downstream from Lubbers Run, and 1.5 mi northwest of Stanhope.	60.1	1979-82	1-05-83	*60
01456200 Musconetcong River	Delaware River	Lat 40°48'48", long 74°50'32", Warren County, at bridge in Beattystown, 2.1 mi northeast of Stephensburg, and 3.0 mi south of Hackettstown.	90.3	-	12-06-82 1-05-83	*114 *81
01457400 Musconetcong River	Delaware River	Lat 40°35'32", long 75°11'20", Warren County, at bridge on State Highway 13 at Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.	156	-	12-23-82	176
01477510 Oldmans Creek	Delaware River	Lat 39°41'57", long 75°20'01", Salem County, at bridge on Kings Highway in Porches Mill, 1.0 mi north of Seven Stars, and 3.1 mi north of Woodstown.	21.0	1979-82	3-22-83	133

* Base flow.
a Not previously published.
b Field estimate.

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929 unless otherwise noted. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM STAGES AT TIDAL CREST-STAGE PARTIAL-RECORD STATIONS

Station No.	Station name	Location	Period of record	Annual maximum Date	Annual maximum Elevation NGVD* (feet)
01411409	Delaware Bay at Reeds Beach, NJ	Lat 39°06'32", long 074°53'39", Cape May County, at boat ramp in Cooks Beach, 0.2 mi south of Reeds Beach, 4.8 mi northwest of Cape May Court House, and 5.8 mi north of Villas.	1979-83	4-03-83	6.26
01412150	Maurice River at Bivalve, NJ	Lat 39°13'42", long 75°02'12", Cumberland County, on right bank on bulkhead piling on the south side of Bivalve, and 1.3 mi south of Port Norris.	1965-83	4-03-83	6.54
01413038	Cohansey River at Greenwich, NJ	Lat 39°23"02", long 075°20'58" Cumberland County, at Greenwich Pier, 0.7 mi southwest of Greenwich, and 5.8 mi southwest of Shiloh.	1979-83	4-03-83	5.63
01464040	Delaware River at Marine Terminal, Trenton, NJ	Lat 40°11'21", long 74°45'22", Mercer County, on left bank at downstream end of wharf at Marine Terminal, Trenton, 1.6 mi downstream from toll bridge on U.S. Route 1, 2.0 mi downstream from Assunpink Creek, and at mile 131.80.	1921-46‡, 1951-54‡, 1957-83‡e	4-17-83	c14.04
01477050	Delaware River at Chester, PA	Lat 39°49'52", long 75°19'58", Gloucester County, on left bank on floodgate at mouth of Repaupo Creek 2.2 mi northeast of Bridgeport, 5.5 mi north of Swedesboro, and at mile 84.00 mi, prior to October 1980 located at Reynolds Aluminum Company pier in Chester, PA at mile 82.30 mi.	1972-77‡, 1979-83	4-03-83	b6.35
01483050	Alloway Creek at Hancocks Bridge, NJ	Lat 39°30'31" long 75°27'39", Salem County, on left bank at downstream side of Mill Street bridge in Hancocks Bridge, 0.4 mi downstream from Lower Alloway Creek, and 4.0 mi south of Salem.	1980-83	4-03-83	5.34

* National Geodetic Vertical Datum of 1929.
‡ Operated as a continuous-record gaging station.
a Revised.
b Gage datum; not National Geodetic Vertical Datum of 1929 datum.
c Furnished by National Ocean Survey.
d Not previously published.
e Operated by National Ocean Survey since March 1975.

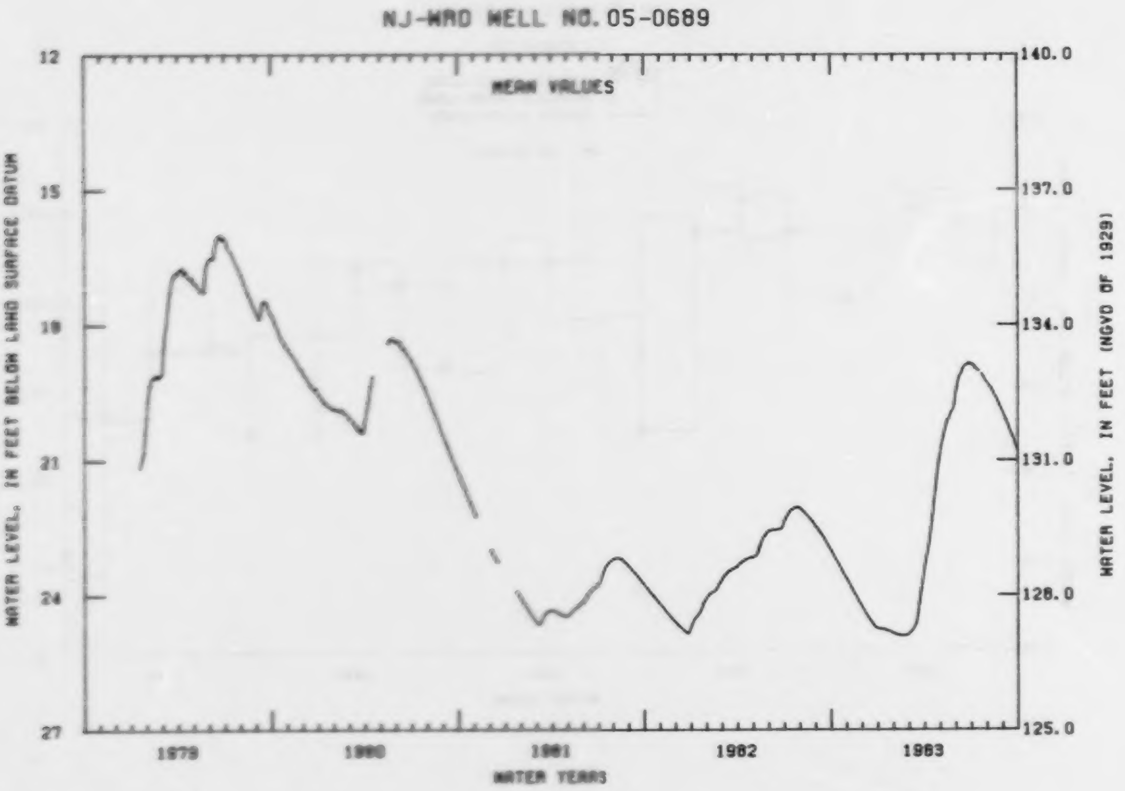
BURLINGTON COUNTY

395150074284201. Local I.D., Lebanon State Forest 23-D Obs. NJ-WRD Well Number, 05-0689.
LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, Woodland Township. Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 33 ft, open-end cement casing.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 152.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 8 inch casing, 0.70 ft above land-surface datum.
PERIOD OF RECORD.--September 1955 to April 1975, January 1979 to current year. Records for 1955 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.37 ft below land-surface datum, Sept. 11, 1958; lowest, 25.80 ft below land-surface datum, Feb. 19-20, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 18.84 ft below land-surface datum, June 24-25, 27-28; lowest, 24.90 ft below land-surface datum, Feb. 13-22.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.12	23.75	24.36	24.75	24.87	24.81	23.09	20.60	19.23	18.88	19.37	20.07
10	23.22	23.86	24.46	24.76	24.89	24.73	22.74	20.35	19.08	18.97	19.46	20.20
15	23.31	23.97	24.55	24.77	24.89	24.62	22.33	20.12	18.94	19.01	19.57	20.37
20	23.42	24.07	24.62	24.79	24.90	24.27	21.82	20.01	18.89	---	19.66	20.50
25	23.52	24.17	24.70	24.81	24.88	23.86	21.32	19.89	18.84	19.17	19.81	20.67
EOM	23.65	24.27	24.74	24.85	24.87	23.41	20.93	19.52	18.89	19.28	19.94	20.79
MEAN	23.38	23.97	24.55	24.78	24.88	24.36	22.21	20.17	19.02	19.05	19.59	20.37

WTR YR 1983 MEAN 22.22 HIGH 18.84 JUN 25 AND OTHERS LOW 24.90 FEB 13 AND OTHERS

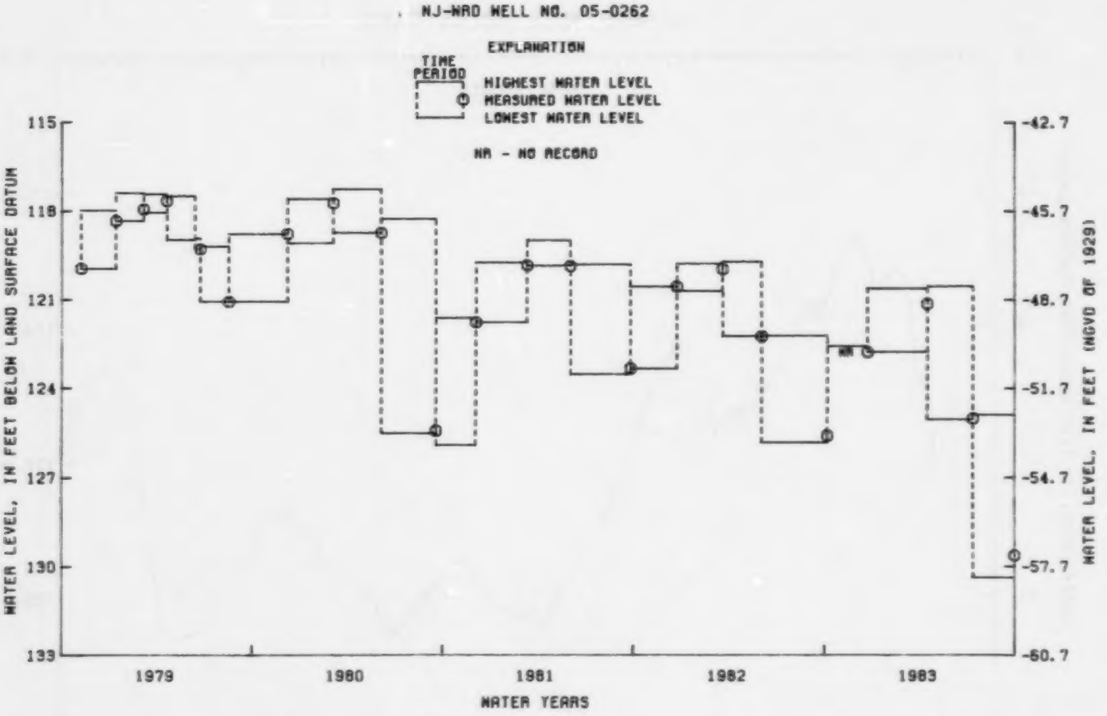


BURLINGTON COUNTY

395525074502601. Local I.D., Medford 4 Obs. NJ-WRD Well Number, 05-0262.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,145 ft, screened 1,125 to 1,145 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1968 to July 1975.
DATUM.--Land-surface datum is 72.32 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.56 ft above land-surface datum.
PERIOD OF RECORD.--January 1968 to July 1975, February 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.24 ft below land-surface datum, Mar. 13, 1968; lowest, 130.38 ft below land-surface datum, between July 12 and Sept. 30, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 120.54 ft below land-surface datum, between Apr. 15 and July 12; lowest, 130.38 ft below land-surface datum, between July 12 and Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1982 TO DEC. 22, 1982	122.57	---	DEC. 22, 1982	122.77
DEC. 22, 1982 TO APR. 15, 1983	120.62	122.77	APR. 15, 1983	121.14
APR. 15, 1983 TO JULY 12, 1983	120.54	125.05	JULY 12, 1983	125.02
JULY 12, 1983 TO SEPT. 30, 1983	124.89	130.38	SEPT. 30, 1983	129.64



BURLINGTON COUNTY

395525074502505. Local I.D., Medford 5 Obs. NJ-WRD Well Number, 05-0261.

LOCATION.--Lat 39°55'25", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.

Owner: U.S. Geological Survey.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 750 ft, screened 740 to 750 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 72.60 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelf, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to March 1975, March 1977 to current year. Records for 1968 to 1977 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.46 ft below land-surface datum, Mar. 1, 1968; lowest, 131.05 ft below land-surface datum, Sept. 16, 1983.

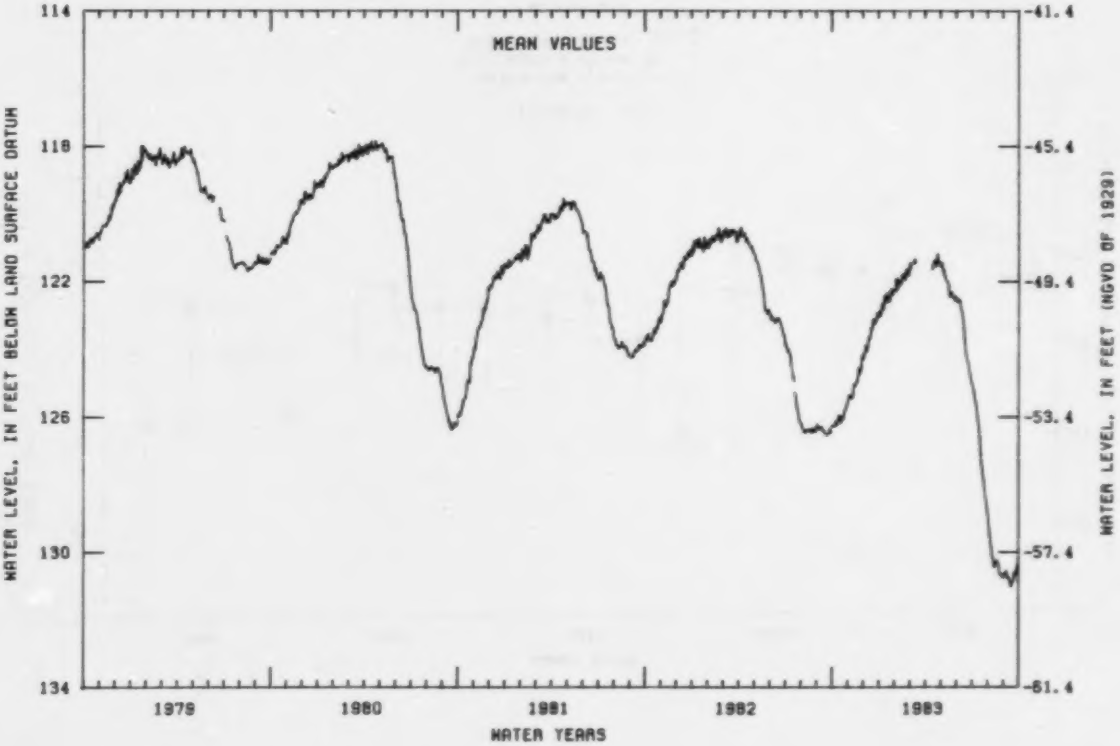
EXTREMES FOR CURRENT YEAR.--Highest water level, 121.08 ft below land-surface datum, Apr. 25; lowest, 131.05 ft below land-surface datum, Sept. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.26	125.34	123.96	122.88	122.23	---	---	121.55	122.55	125.19	129.44	130.58
10	126.22	125.41	123.89	122.67	122.11	121.39	---	121.86	122.81	125.63	130.10	130.73
15	125.93	125.02	123.59	122.38	121.78	---	121.62	121.98	123.25	126.24	130.41	131.01
20	126.05	124.91	123.08	122.60	121.95	---	121.37	122.38	124.14	127.27	130.23	130.79
25	125.85	124.71	123.16	122.28	121.62	---	121.16	122.44	124.42	127.98	130.65	130.67
EOM	125.62	124.28	123.01	122.22	121.74	---	121.52	122.43	124.95	128.65	130.72	130.24
MEAN	126.04	125.00	123.53	122.53	121.91	---	---	122.07	123.52	126.64	130.12	130.68

WTR YR 1983 MEAN 124.93 HIGH 121.16 APR 25 LOW 131.01 SEP 15

NJ-WRD WELL NO. 05-0261



BURLINGTON COUNTY

395524074502501. Local I.D., Medford 1 Obs. NJ-WRD Well Number, 05-0258.

LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.

Owner: U.S. Geological Survey.

AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 410 ft, screened 400 to 410 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, October 1963 to August 1975.

DATUM.--Land-surface datum is 70.77 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.87 ft above land-surface datum.

PERIOD OF RECORD.--October 1963 to August 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.

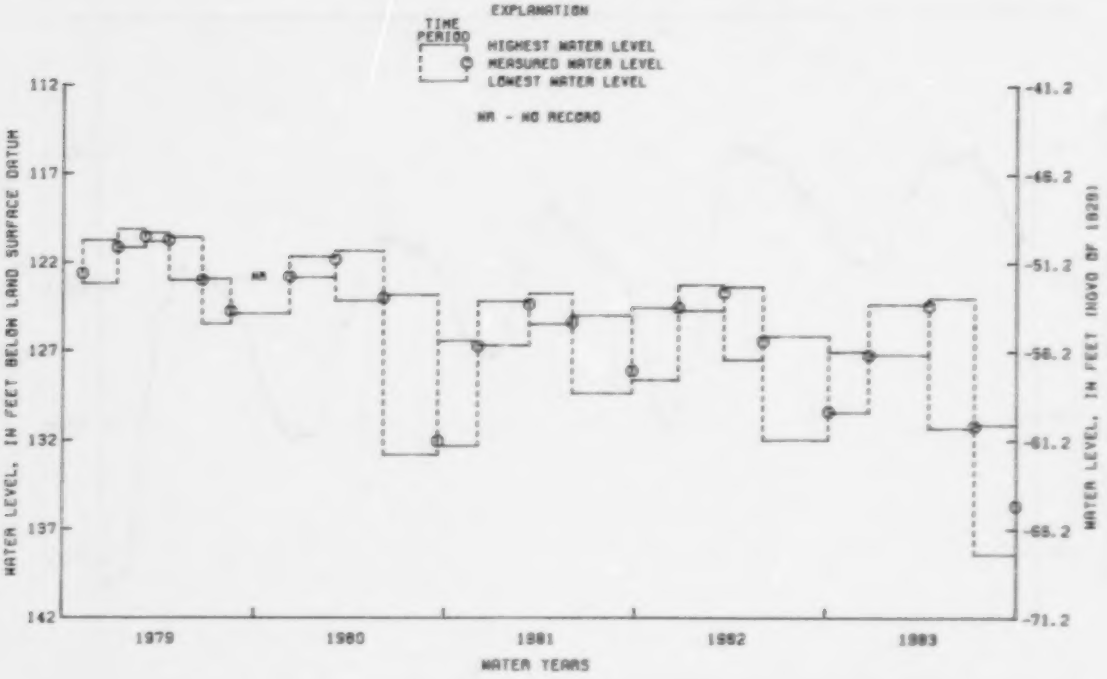
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.22 ft below land-surface datum, Feb. 16-19, 1964; lowest, 138.42 ft below land-surface datum, between July 12 and Sept. 30, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 123.99 ft below land-surface datum, between Apr. 15 and July 12; lowest, 138.42 ft below land-surface datum, between July 12 and Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1982 TO DEC. 22, 1982	127.01	130.42	DEC. 22, 1982	127.19
DEC. 22, 1982 TO APR. 15, 1983	124.34	127.19	APR. 15, 1983	124.43
APR. 15, 1983 TO JULY 12, 1983	123.99	131.29	JULY 12, 1983	131.19
JULY 12, 1983 TO SEPT. 30, 1983	131.11	138.42	SEPT. 30, 1983	135.65

NJ-WRD WELL NO. 05-0258

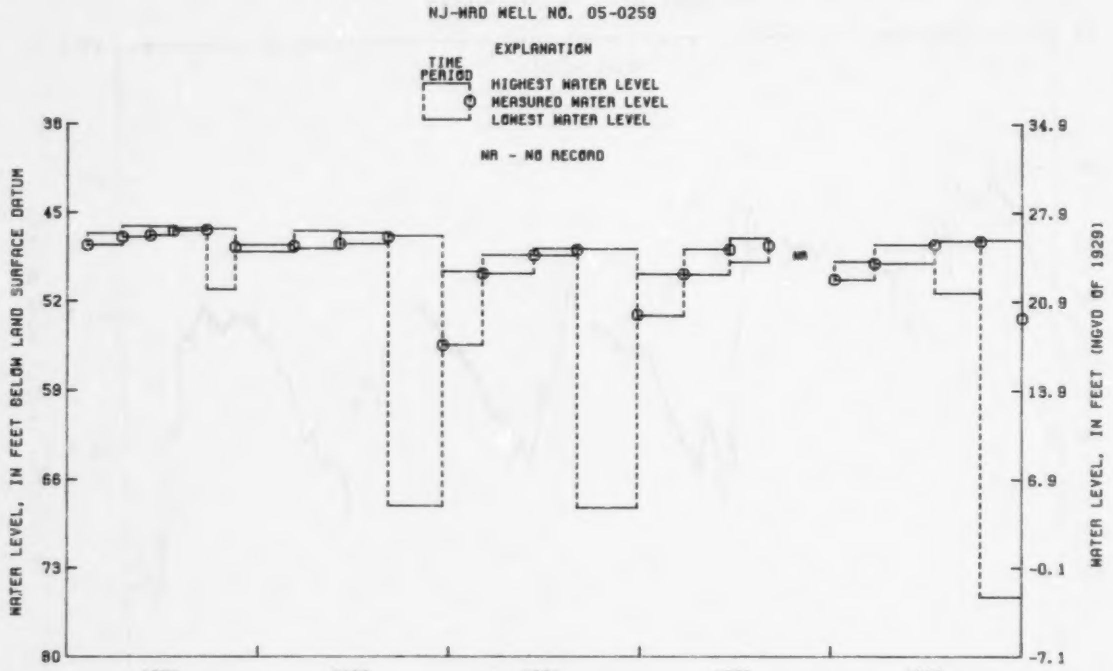


BURLINGTON COUNTY

395524074502502. Local I.D., Medford 2 Obs. NJ-WRD Well Number, 05-0259.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 263 ft, screened 253 to 263 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, October 1963 to August 1975.
DATUM.--Land-surface datum is 72.92 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--October 1963 to August 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.42 ft below land-surface datum, Apr. 27, 1973; lowest, 111.96 ft below land-surface datum, July 9, 1964.
EXTREMES FOR CURRENT YEAR.--Highest water level, 47.12 ft below land-surface datum, between July 12 and Sept. 30; lowest, 75.27 ft below land-surface datum, between July 12 and Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1982 TO DEC. 22, 1982	48.80	50.25	DEC. 22, 1982	48.96
DEC. 22, 1982 TO APR. 15, 1983	47.47	48.96	APR. 15, 1983	47.49
APR. 15, 1983 TO JULY 12, 1983	47.18	51.31	JULY 12, 1983	47.23
JULY 12, 1983 TO SEPT. 30, 1983	47.12	75.27	SEPT. 30, 1983	53.30



BURLINGTON COUNTY

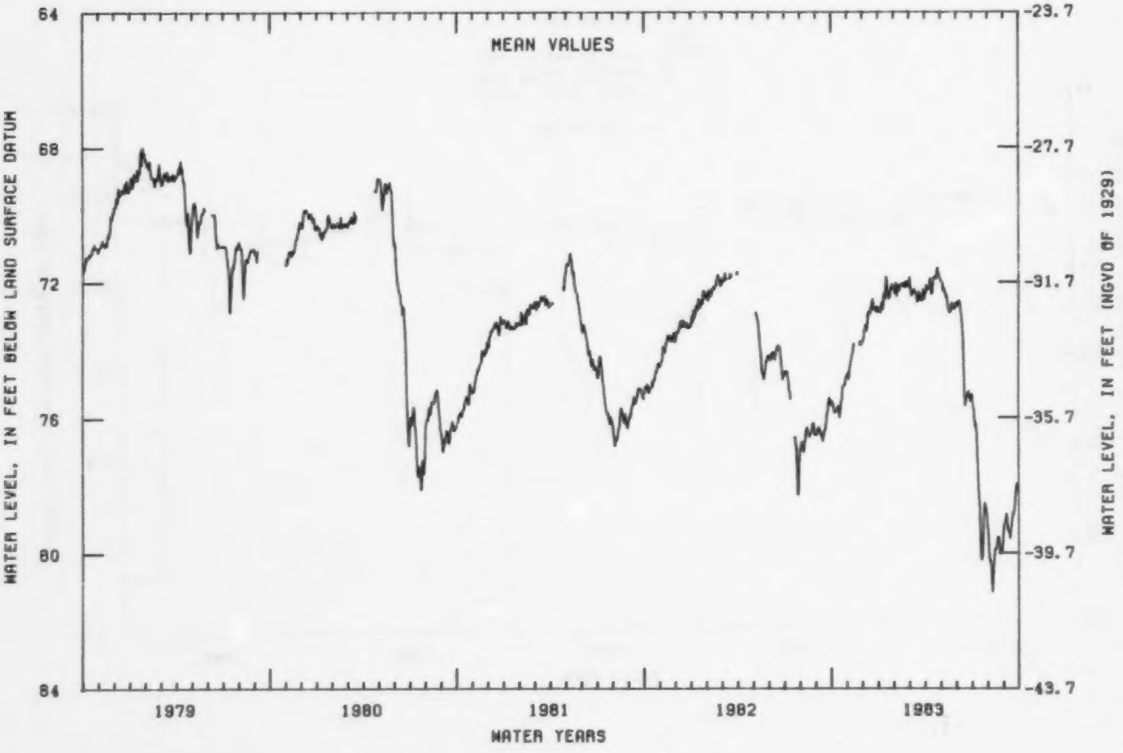
400010074521601. Local I.D., Willingboro 2 Obs. NJ-WRD Well Number, 05-0645.
LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, near intersection of Bridge Street and Tiffany Lane, Willingboro.
Owner: Willingboro Municipal Utilities Authority.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 441 ft, screened 431 to 441 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 40.30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.00 ft below land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--March 1966 to September 1975, March 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.79 ft below land-surface datum, June 21, 1967; lowest, 81.29 ft below land-surface datum, Aug. 10, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 71.31 ft below land-surface datum, Apr. 25; lowest, 81.29 ft below land-surface datum, Aug. 10.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.64	74.65	73.36	72.85	72.42	72.35	72.23	72.12	72.58	75.75	80.25	78.93
10	75.78	74.16	73.20	72.61	72.24	72.21	71.94	72.30	72.93	76.42	81.15	79.37
15	75.66	---	72.94	71.83	72.04	72.37	72.27	72.67	74.26	78.39	79.86	79.25
20	75.50	---	72.50	72.50	72.16	72.51	71.88	72.87	75.43	80.20	79.53	78.86
25	75.05	73.84	72.75	72.15	71.97	72.45	71.57	72.80	75.22	78.64	80.04	78.13
EOM	74.75	73.77	72.82	72.21	72.11	72.43	71.88	72.61	75.48	79.25	79.43	77.99
MEAN	75.47	---	73.00	72.40	72.13	72.34	72.00	72.51	74.16	77.88	80.00	78.85

WTR YR 1983 MEAN 74.61 HIGH 71.57 APR 25 LOW 81.15 AUG 10

NJ-WRD WELL NO.05-0645



BURLINGTON COUNTY

400213074510801. Local I.D., Willingboro 1 Obs. NJ-WRD Well Number, 05-0063.

LOCATION.--Lat 40°02'13", long 74°51'08", Hydrologic Unit 02040202, on the west side of Rancocas Road about 2 mi north of Rancocas.

Owner: Willingboro Municipal Utilities Authority.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 294 ft, screened 284 to 294 ft.

INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, March 1966 to September 1975.

DATUM.--Land-surface datum is 45.45 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 0.76 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

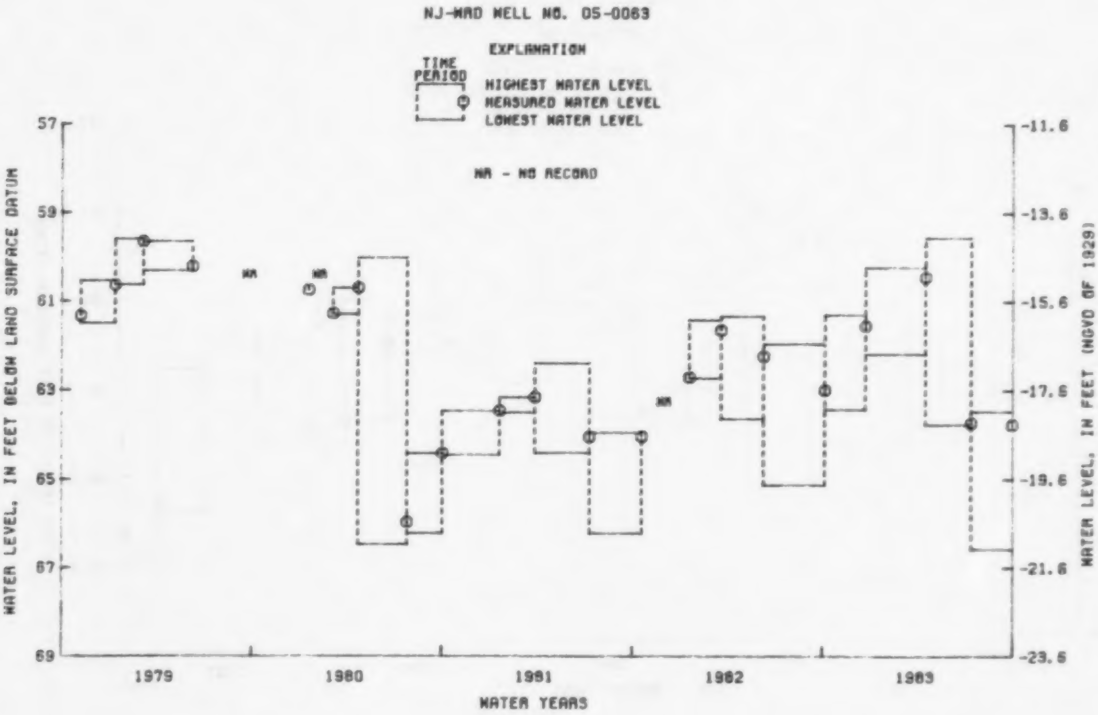
PERIOD OF RECORD.--March 1966 to September 1975, February 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 46.25 ft below land-surface datum, Mar. 19, 1966; lowest, 68.47 ft below land-surface datum, between July 12 and Sept. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 59.57 ft below land-surface datum, between Apr. 15 and July 12; lowest, 66.59 ft below land-surface datum, between July 12 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1982 TO DEC. 22, 1982	61.31	63.44	DEC. 22, 1982	61.56
DEC. 22, 1982 TO APR. 15, 1983	60.24	62.20	APR. 15, 1983	60.46
APR. 15, 1983 TO JULY 12, 1983	59.57	63.78	JULY 12, 1983	63.74
JULY 12, 1983 TO SEPT. 29, 1983	63.48	66.59	SEPT. 29, 1983	63.78



BURLINGTON COUNTY

400242074422301. Local I.D., Rhodia Corp. 1 Obs. NJ-WRD Well Number, 05-0440.

LOCATION.--Lat 40°02'42", long 74°42'23", Hydrologic Unit 02040201, on the lands of Rhodia Corporation near Jobstown. Owner: Rhodia Corporation.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 615 ft, screened 603 to 613 ft.

INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1968 to March 1975.

DATUM.--Land-surface datum is 71.65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Front edge of cutout in recorder housing, 2.22 ft above land-surface datum.

PERIOD OF RECORD.--December 1968 to March 1975, April 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 86.55 ft below land-surface datum, Dec. 31, 1969; lowest, 104.13 ft below land-surface datum, between Apr. 28 and Aug. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 98.89 ft below land-surface datum, between Jan. 7 and Apr. 27; lowest, 103.86 ft below land-surface datum, between July 26 and Sept. 30.

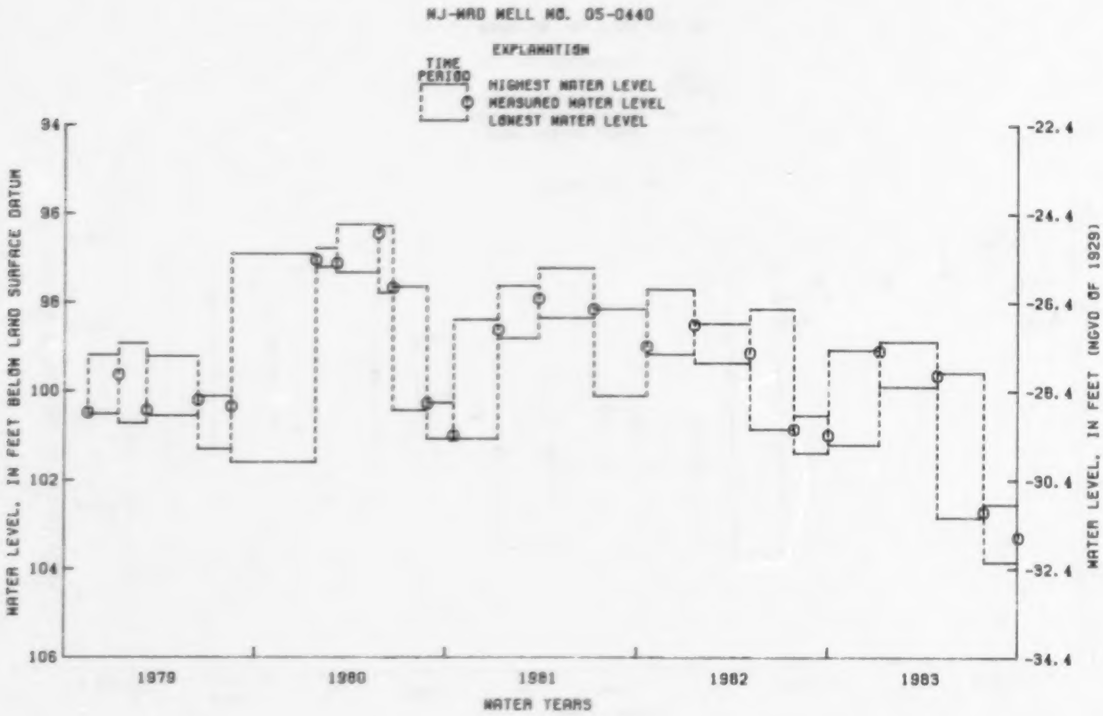
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 1, 1982 TO JAN. 7, 1983	99.08	101.21
JAN. 7, 1983 TO APR. 27, 1983	98.89	99.91
APR. 27, 1983 TO JULY 26, 1983	99.59	102.85
JULY 26, 1983 TO SEPT. 30, 1983	102.55	103.86

MEASURED WATER LEVEL

DATE	WATER LEVEL
JAN. 7, 1983	99.10
APR. 27, 1983	99.65
JULY 26, 1983	102.72
SEPT. 30, 1983	103.30



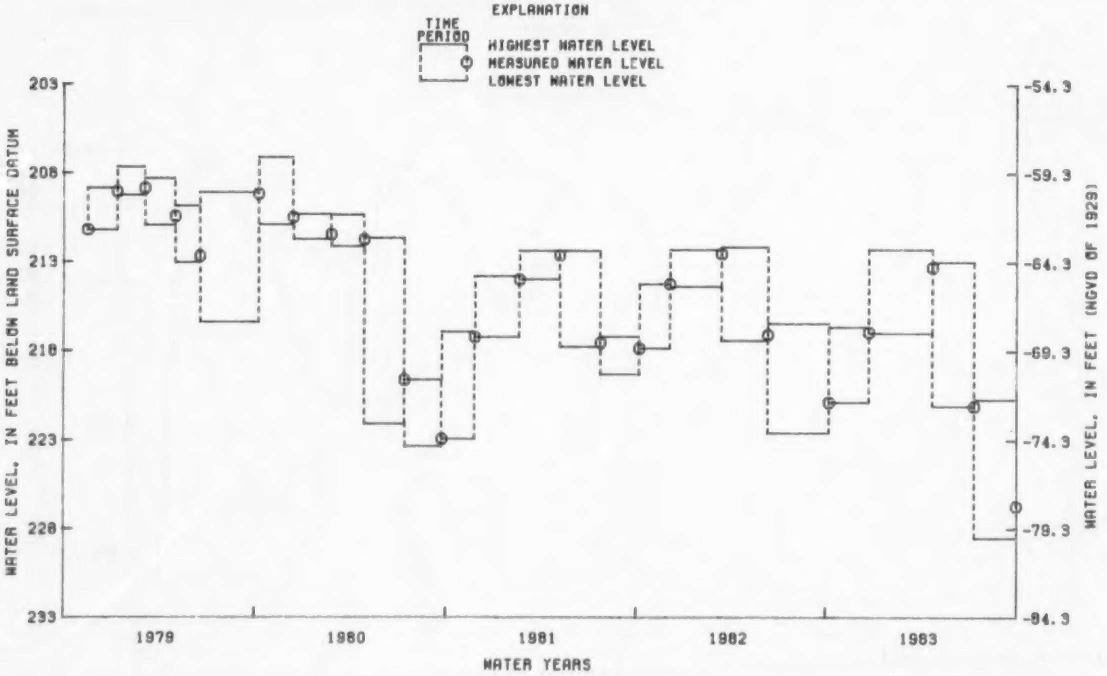
CAMDEN COUNTY

394922074563301. Local I.D., Elm Tree Farm 2 Obs. NJ-WRD Well Number, 07-0412.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Road and about 2 mi northwest of Berlin.
Owner: New Jersey Water Company.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,092 ft, screened 1,082 to 1,092 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, January 1963 to June 1975.
DATUM.--Land-surface datum is 148.68 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.76 ft above land-surface datum.
REMARKS.--Well was originally screened 1,217 to 1,227 ft; rehabilitated August 1969.
PERIOD OF RECORD.--January 1963 to June 1975, February 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 166.06 ft below land-surface datum, July 21, 1965; lowest, 228.51 ft below land-surface datum, between July 11 and Sept. 30, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 212.27 ft below land-surface datum, between Dec. 22 and Apr. 22; lowest, 228.51 ft below land-surface datum, between July 11 and Sept. 30.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1982 TO DEC. 22, 1982	216.65	220.88	DEC. 22, 1982	216.95
DEC. 22, 1982 TO APR. 22, 1983	212.27	217.00	APR. 22, 1983	213.28
APR. 22, 1983 TO JULY 11, 1983	212.98	221.09	JULY 11, 1983	221.09
JULY 11, 1983 TO SEPT. 30, 1983	220.70	228.51	SEPT. 30, 1983	226.72

NJ-WRD WELL NO. 07-0412



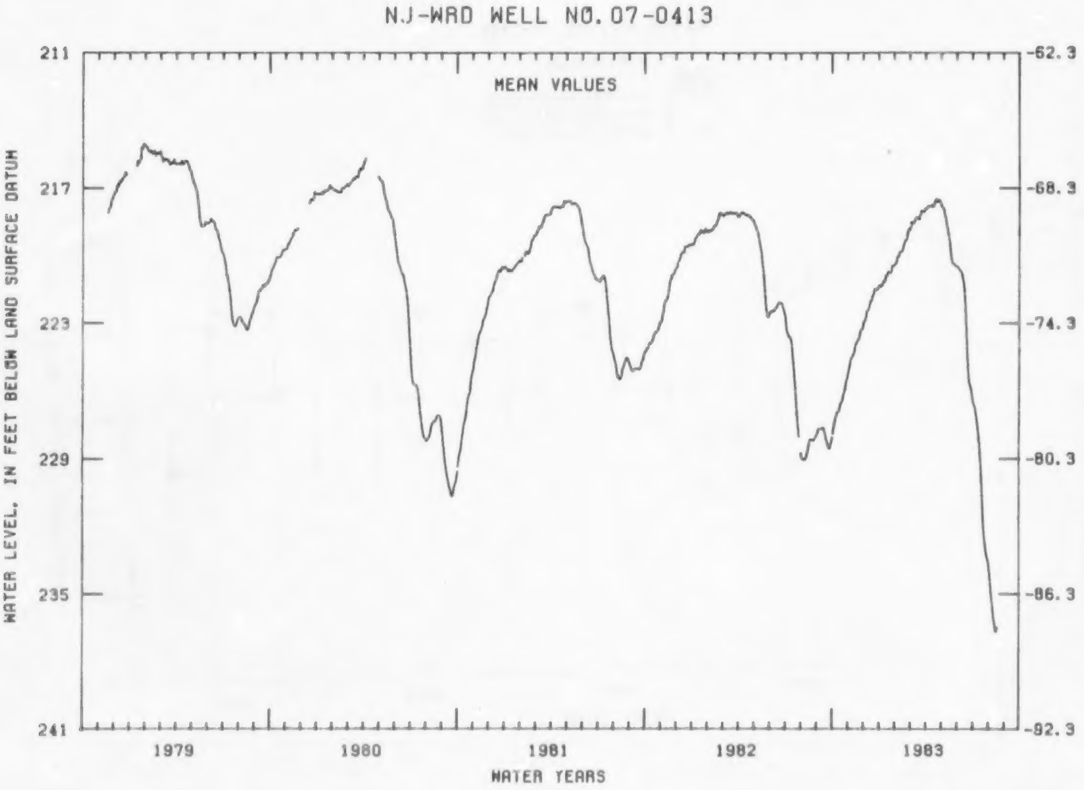
CAMDEN COUNTY

394922074563302. Local I.D., Elm Tree Farm 3 Obs. NJ-WRD Well Number, 07-0413.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Road and about 2 mi northwest of Berlin.
Owner: New Jersey Water Company.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 717 ft, screened 706 to 717 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 148.73 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 0.60 ft above land-surface datum.
PERIOD OF RECORD.--December 1963 to April 1975, March 1977 to current year. Records for 1963 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 174.21 ft below land-surface datum, Feb. 6, 1964; lowest, 236.70 ft below land-surface datum, Aug. 15, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 217.48 ft below land-surface datum, Apr. 20; lowest, 236.70 ft below land-surface datum, Aug. 15.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	227.28	224.57	222.60	221.31	220.02	218.55	217.81	217.96	220.64	226.79	234.76	
10	226.91	224.37	222.33	221.13	219.83	218.40	217.81	218.57	220.94	227.54	235.94	
15	226.64	223.89	221.98	220.83	219.59	218.34	217.82	219.18	221.78	228.74	236.70	
20	226.36	223.71	221.56	220.74	219.31	218.15	217.48	220.17	224.45	231.15	---	
25	225.86	223.28	221.50	220.44	218.86	218.03	217.51	220.38	225.74	232.89	---	
EOM	225.16	222.93	221.37	220.33	218.84	217.94	217.76	220.48	226.34	233.61	---	
MEAN	226.52	223.95	221.96	220.83	219.56	218.27	217.71	219.32	222.92	229.76	---	

WTR YR 1983 MEAN 222.82 HIGH 217.48 APR 20 LOW 236.70 AUG 15



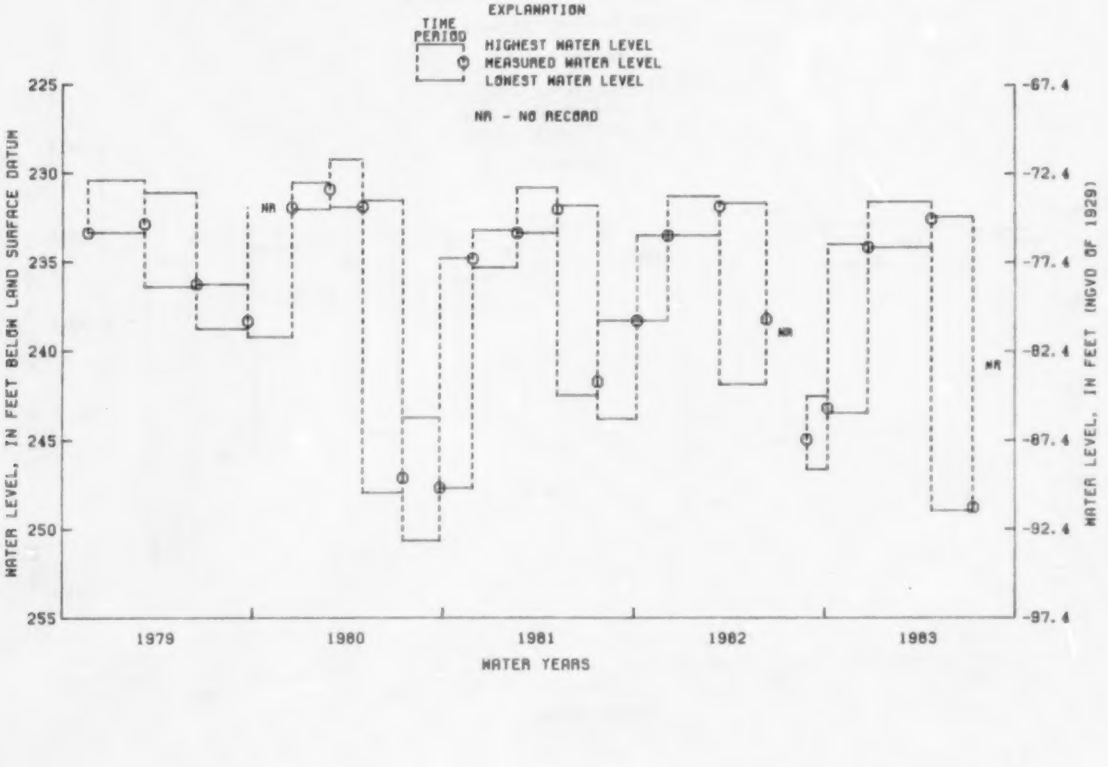
CAMDEN COUNTY

395229074571201. Local I.D., Hutton Hill 1 Obs. NJ-WRD Well Number, 07-0117.
LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft northeast of intersection of Kresson and Cropwell Roads, Cherry Hill Township.
Owner: New Jersey Water Company.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 562 ft, screened 552 to 562 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, August 1967 to April 1975.
DATUM.--Land-surface datum is 157.61 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.89 ft above land-surface datum.
PERIOD OF RECORD.--August 1967 to April 1975, February 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 200.77 ft below land-surface datum, Mar. 23, 1968; lowest, 250.65 ft below land-surface datum, between July 15 and Sept. 24, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 231.59 ft below land-surface datum, between Dec. 22 and Apr. 22; lowest, 248.97 ft below land-surface datum, between Apr. 22 and July 11.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1982 TO DEC. 22, 1982	233.98	243.47	DEC. 22, 1982	234.14
DEC. 22, 1982 TO APR. 22, 1983	231.59	234.17	APR. 22, 1983	232.56
APR. 22, 1983 TO JULY 11, 1983	232.43	248.97	JULY 11, 1983	248.80
JULY 11, 1983 TO SEPT. 30, 1983	---	---	SEPT. 30, 1983	---

NJ-WRD WELL NO. 07-0117



CAMDEN COUNTY

395246075043301. Local I.D., Egbert Station Obs. NJ-WRD Well Number, 07-0283.
LOCATION.--Lat 39°52'46", long 75°04'34", Hydrologic Unit 02040202, in Camden County Park, about 400 ft south of the corner of Dallas and Sylvan Avenues, Haddon Heights.
Owner: New Jersey Water Company.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 455 ft, screened 445 to 455 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, July 1963 to August 1975.
DATUM.--Land-surface datum is 23.66 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.16 ft above land-surface datum.
REMARKS.--Water level affected occasionally by nearby pumping.
PERIOD OF RECORD.--July 1963 to August 1975, February 1977 to current year. Periodic manual measurements, September 1975 to January 1977. Records for 1963 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.93 ft below land-surface datum, Apr. 8, 1964; lowest, 130.41 ft below land-surface datum, between July 12 and Sept. 29, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 83.63 ft below land-surface datum, between Dec. 22 and Apr. 22; lowest, 130.41 ft below land-surface datum, between July 12 and Sept. 29.

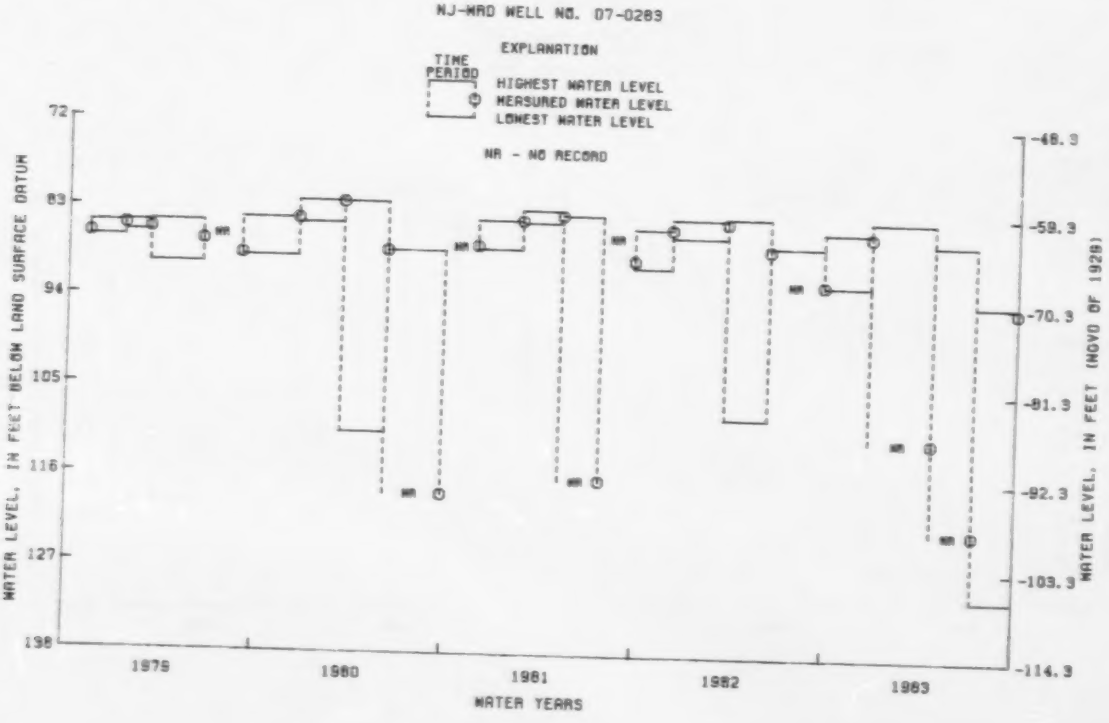
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
SEPT. 22, 1982 TO DEC. 22, 1982	85.05	91.68
DEC. 22, 1982 TO APR. 22, 1983	83.63	---
APR. 22, 1983 TO JULY 12, 1983	86.34	---
JULY 12, 1983 TO SEPT. 29, 1983	93.82	130.41

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 22, 1982	85.51
APR. 22, 1983	110.90
JULY 12, 1983	122.23
SEPT. 29, 1983	94.49



CAPE MAY COUNTY

385616074580001. Local I.D., Traffic Circle Obs. NJ-WRD Well Number, 09-0020.

LOCATION.--Lat 38°56'16", long 74°58'00", Hydrologic Unit 02040206, about 2,000 ft south of Sunset Boulevard at the traffic circle in Cape May Point.

Owner: U.S. Geological Survey.

AQUIFER.--Cape May Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 20 ft, screened 15 to 20 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, January 1967 to April 1977.

DATUM.--Land-surface datum is 9.12 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.17 ft above land-surface datum.

REMARKS.--Water level affected by stage of Lake Lilly.

PERIOD OF RECORD.--January 1967 to current year. Periodic manual measurements, January 1963 to December 1966.

Records for 1963 to 1982 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.45 ft below land-surface datum, between Nov. 11, 1977 and Feb. 21, 1978; lowest, 6.12 ft below land-surface datum, Nov. 5-6, 1968.

EXTREMES FOR CURRENT YEAR.--Highest water level, 2.60 ft below land-surface datum, between Apr. 13 and July 22; lowest, 5.68 ft below land-surface datum, between Oct. 7 and Dec. 28.

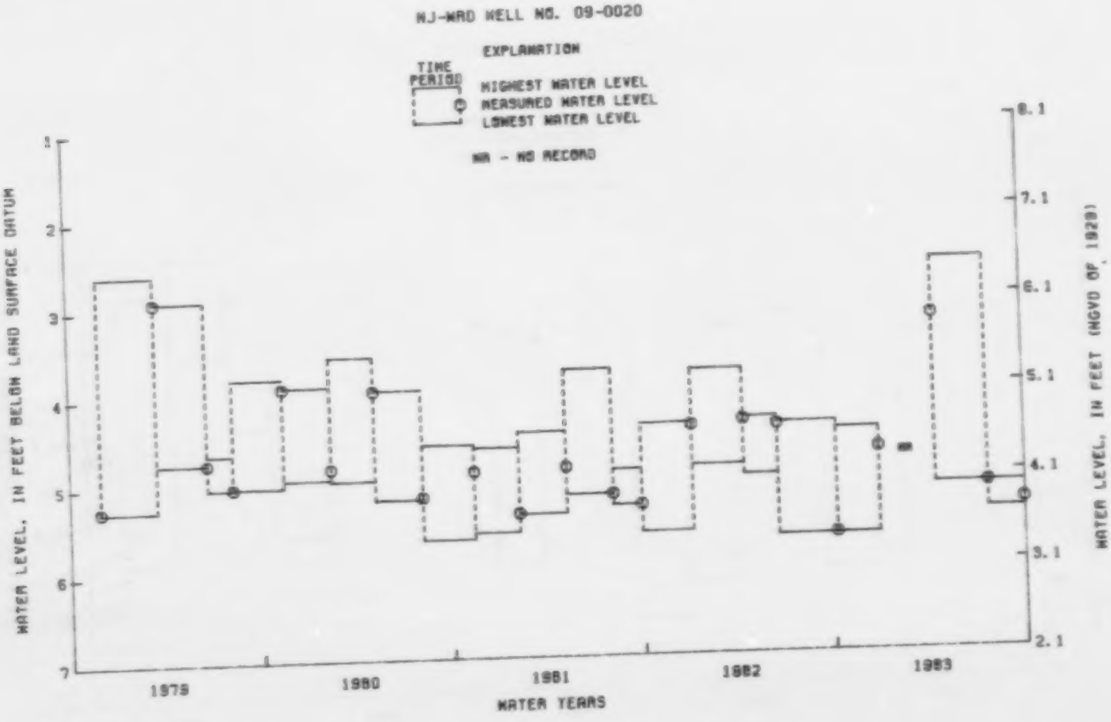
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES

PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL
OCT. 7, 1982 TO DEC. 28, 1982	4.49	5.68
DEC. 28, 1982 TO APR. 13, 1983	---	---
APR. 13, 1983 TO JULY 22, 1983	2.60	5.13
JULY 22, 1983 TO SEPT. 29, 1983	5.13	5.42

MEASURED WATER LEVEL

DATE	WATER LEVEL
DEC. 28, 1982	4.72
APR. 13, 1983	3.23
JULY 22, 1983	5.13
SEPT. 29, 1983	5.33

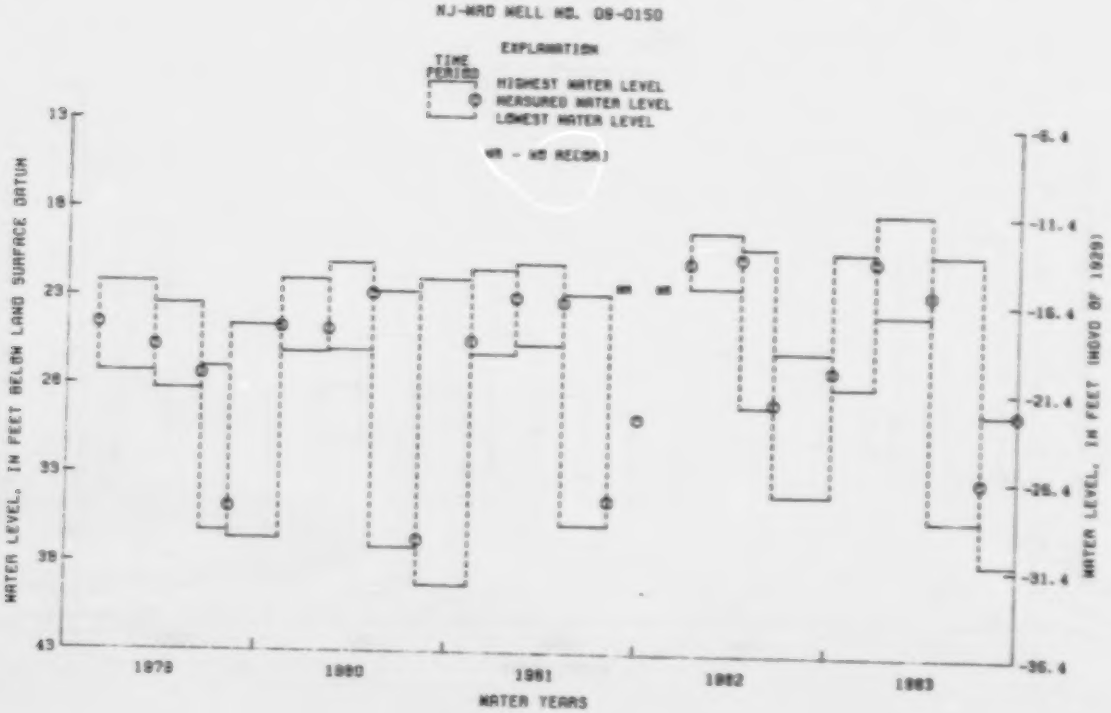


CAPE MAY COUNTY

385607074555201. Local I.D., West Cape May 1 Obs. NJ-WRD Well Number, 09-0150.
LOCATION.--Lat 38°56'07", long 74°55'56", Hydrologic Unit 02040206, on the north side of Sunset Boulevard, West Cape May.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 293 ft, screened 283 to 293 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water level recorder, July 1957 to December 1972.
DATUM.--Land-surface datum is 6.60 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.88 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--July 1957 to December 1972, May 1977 to current year. Periodic manual measurements, February 1973 to September 1976. Records for 1957 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.18 ft below land-surface datum, Apr. 28, 1959; lowest, 41.30 ft below land-surface datum, Sept. 3, 1963.
EXTREMES FOR CURRENT YEAR.--Highest water level, 17.95 ft below land-surface datum, between Dec. 28 and Apr. 13; lowest, 37.69 ft below land-surface datum, between July 22 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1982 TO DEC. 28, 1982	20.16	27.80	DEC. 28, 1982	20.65
DEC. 28, 1982 TO APR. 13, 1983	17.95	23.69	APR. 13, 1983	22.49
APR. 13, 1983 TO JULY 22, 1983	20.22	35.26	JULY 22, 1983	33.03
JULY 22, 1983 TO SEPT. 29, 1983	29.20	37.69	SEPT. 29, 1983	29.20



CAPE MAY COUNTY

385804074574201. Local I.D., Higbee Beach 3 Obs. NJ-WRD Well Number, 09-0049.

LOCATION.--Lat 38°58'04", long 74°57'42", Hydrologic Unit 02040206, on the North bank of the west end of the Cape May Canal, Lower Township.
OWNER: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 250 ft, screened 241 to 250 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, June 1965 to September 1975.

DATUM.--Land-surface datum is 6.00 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Front edge of cutout in recorder housing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

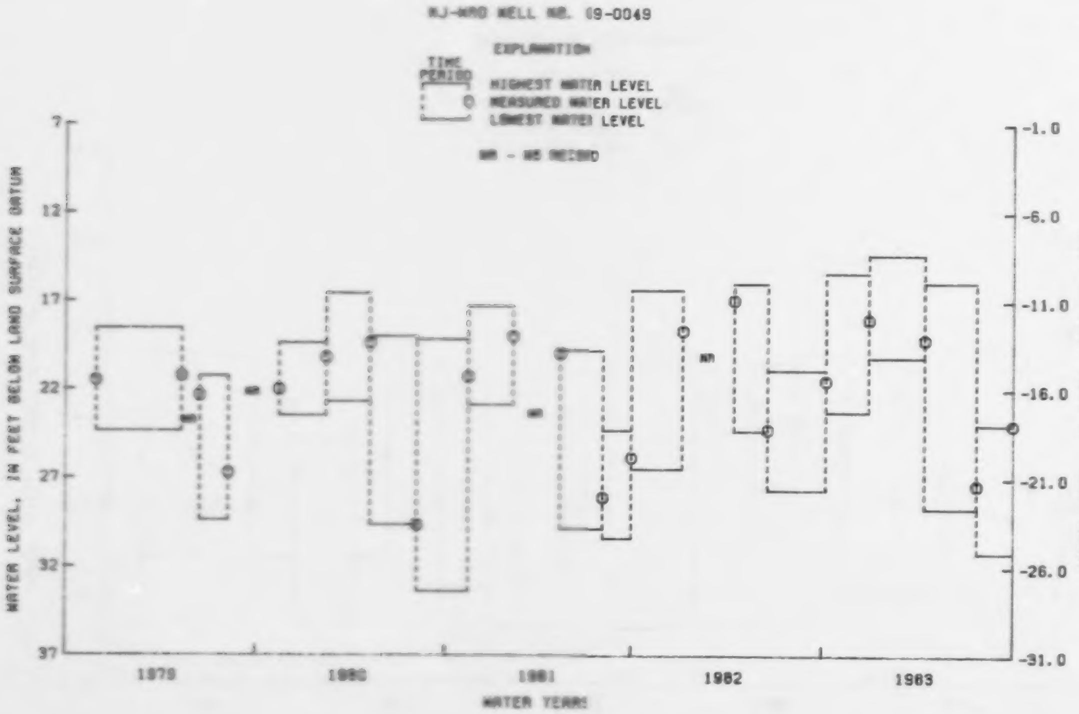
PERIOD OF RECORD.--June 1965 to September 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.16 ft below land-surface datum, Dec. 21, 1965; lowest, 34.22 ft below land-surface datum, July 31, 1974.

EXTREMES FOR CURRENT YEAR.--Highest water level, 14.36 ft below land-surface datum, between Dec. 28 and Apr. 13; lowest, 31.19 ft below land-surface datum, between July 22 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1982 TO DEC. 28, 1982	15.38	23.25	DEC. 28, 1982	18.01
DEC. 28, 1982 TO APR. 13, 1983	14.36	20.17	APR. 13, 1983	19.15
APR. 13, 1983 TO JULY 22, 1983	15.92	28.68	JULY 22, 1983	27.37
JULY 22, 1983 TO SEPT. 29, 1983	23.96	31.19	SEPT. 29, 1983	23.97



CAPE MAY COUNTY

390425074544601. Local I.D., Oyster Lab 4 Obs. NJ-WRD Well Number, 09-0089.

LOCATION.--Lat 39°04'25", long 74°54'46", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.

Owner: U.S. Geological Survey.

AQUIFER.--Cohansey Sand of Miocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 210 ft, screened 195 to 210 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, August 1957 to August 1975.

DATUM.--Land-surface datum is 7.37 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 3.95 ft above land-surface datum.

REMARKS.--Water level affected by tidal fluctuation.

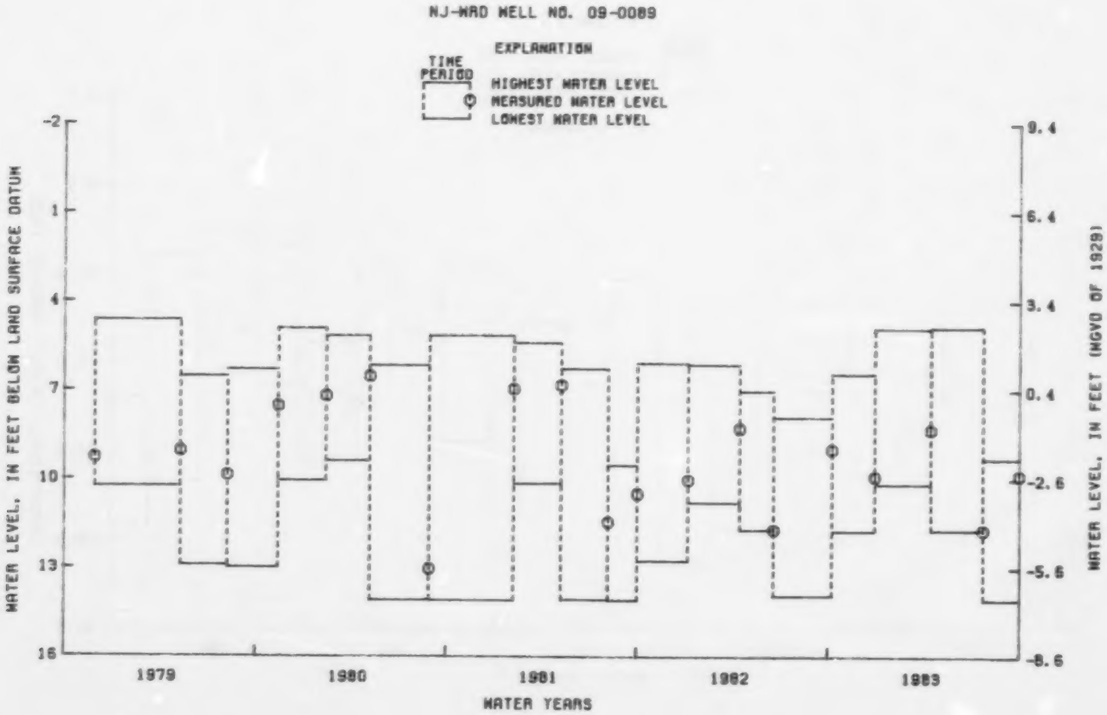
PERIOD OF RECORD.--August 1957 to August 1975, May 1977 to current year. Periodic manual measurements, September 1975 to April 1977. Records for 1957 to 1982 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.07 ft below land-surface datum, Apr. 3, 1958; lowest, 14.10 ft below land-surface datum, between Aug. 28, 1980 and Feb. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 4.86 ft below land-surface datum, between Apr. 13 and July 22; lowest, 14.07 ft below land-surface datum, between July 22 and Sept. 29.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1982 TO DEC. 28, 1982	6.43	11.74	DEC. 28, 1982	9.89
DEC. 28, 1982 TO APR. 13, 1983	4.90	10.15	APR. 13, 1983	8.30
APR. 13, 1983 TO JULY 22, 1983	4.86	11.70	JULY 22, 1983	11.70
JULY 22, 1983 TO SEPT. 29, 1983	9.29	14.07	SEPT. 29, 1983	9.85



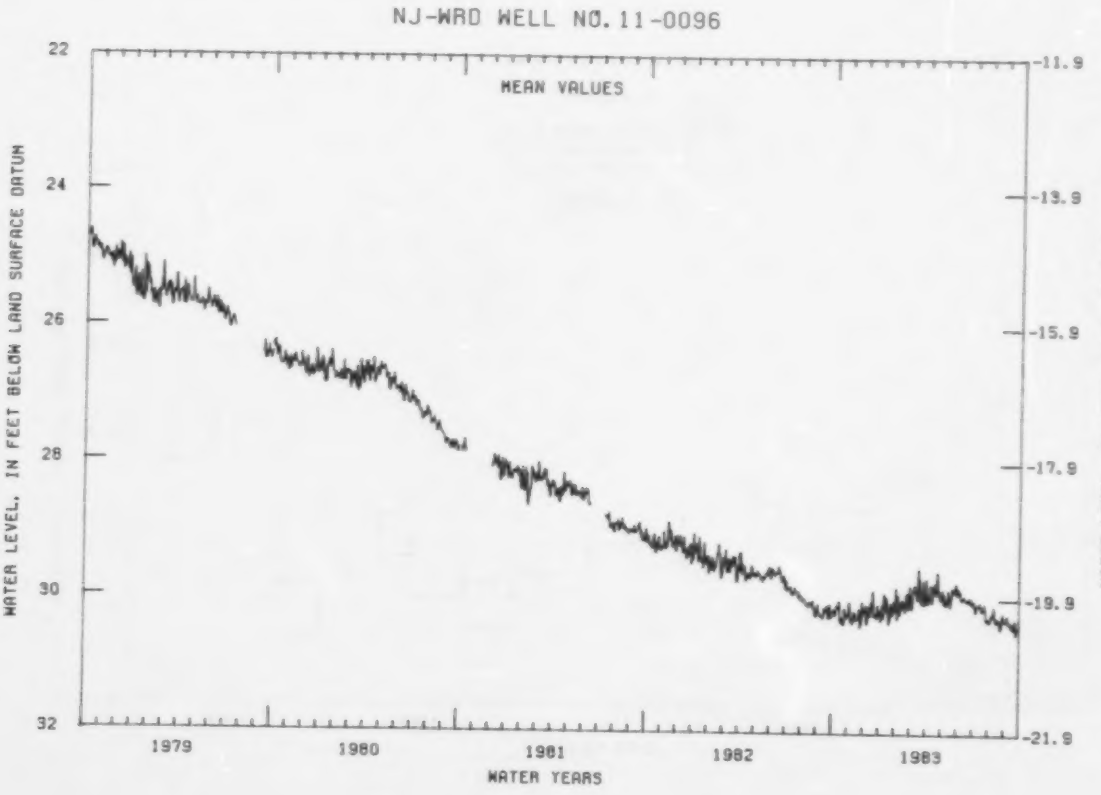
CUMBERLAND COUNTY

391828075120902. Local I.D., Jones Island 2 Obs. NJ-WRD Well Number, 11-0096.
LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, about 1.7 mi south of Cedarville at Jones Island, Lawrence Township.
Owner: Cumberland County.
AQUIFER.--Piney Point aquifer of Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 375 ft, screened 365 to 375 ft.
INSTRUMENTATION.--Water-level recorder.
DATUM.--Land-surface datum is 10.10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.90 ft above land-surface datum.
PERIOD OF RECORD.--March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.99 ft below land-surface datum, Mar. 22, 1977; lowest, 30.56 ft below land-surface datum, Sept. 24, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 29.36 ft below land-surface datum, Mar. 19; lowest, 30.56 ft below land-surface datum, Sept. 24.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.21	30.15	30.13	30.22	30.29	30.13	30.05	29.93	29.89	30.01	30.30	30.27
10	30.10	30.36	30.26	30.08	30.22	29.81	29.79	30.08	30.00	30.07	30.24	30.32
15	30.03	30.21	30.24	29.96	30.00	29.90	29.88	29.87	29.94	30.06	30.29	30.40
20	30.28	30.27	29.87	30.36	30.18	29.81	29.82	30.01	30.01	30.16	30.27	30.42
25	30.13	30.41	30.23	30.16	29.90	29.94	29.62	29.89	29.97	30.10	30.43	30.49
EOM	30.25	30.20	30.19	30.08	30.10	30.00	29.99	29.76	30.06	30.29	30.25	30.26
MEAN	30.21	30.24	30.17	30.15	30.07	29.91	29.88	29.94	29.96	30.12	30.28	30.35

WTR YR 1983 MEAN 30.11 HIGH 29.54 MAR 19 LOW 30.51 SEP 24



CUMBERLAND COUNTY

392219075011301. Local I.D., Orange Street Obs. NJ-WRD Well Number, 11-0141.

LOCATION.--Lat 39°22'19", long 75°01'13", Hydrologic Unit 02040206, about 0.2 mi northeast of Route 47 on Orange Street, Millville.

Owner: Millville City Water Department.

AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 12 in, depth 149 ft, screened 114 to 149 ft.

INSTRUMENTATION.--Water-level extremes recorder, March 1977 to current year. Water-level recorder, October 1962 to September 1975.

DATUM.--Altitude of land-surface datum is 22 ft, from topographic map.

Measuring point: Front edge of cutout in recorder housing, 4.26 ft above land-surface datum.

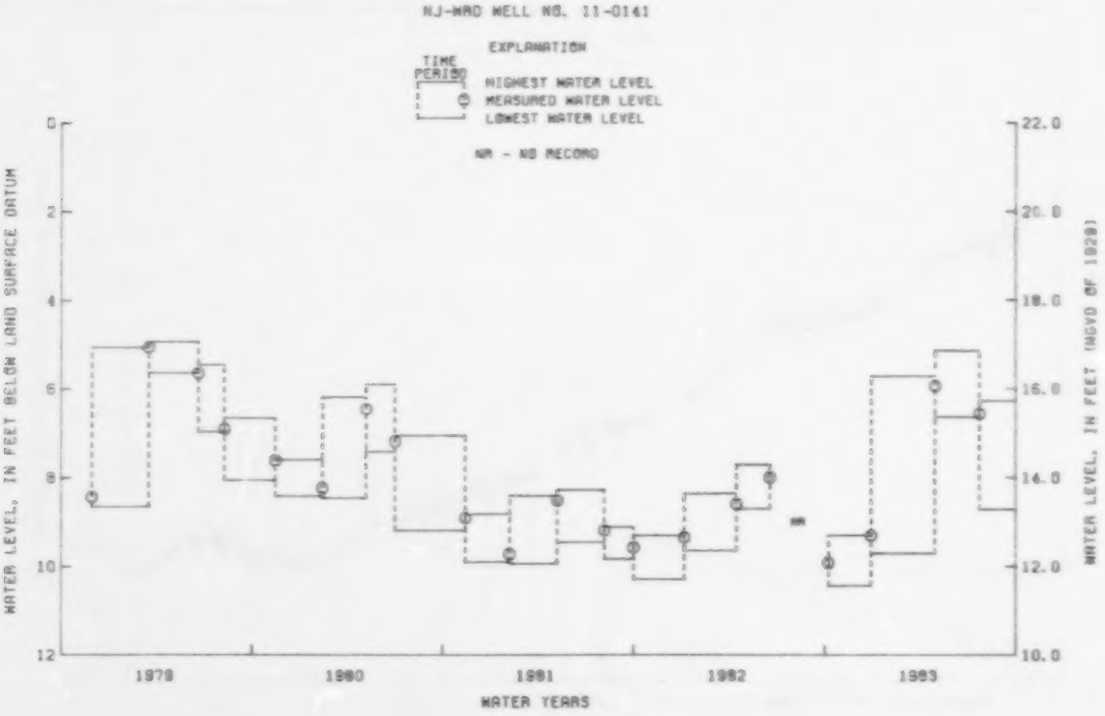
PERIOD OF RECORD.--October 1962 to September 1975, March 1977 to current year. Records for 1962 to 1980 are unpublished and are availabe in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.94 ft below land-surface datum, between Mar. 16 and June 19, 1979; lowest, 11.37 ft below land-surface datum, Feb. 10, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level, 5.14 ft below land-surface datum, between Apr. 28 and July 22; lowest, 10.44 ft below land-surface datum, between Oct. 7 and Dec. 28.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1982 TO DEC. 28, 1982	9.30	10.44	DEC. 28, 1982	9.31
DEC. 28, 1982 TO APR. 28, 1983	5.72	9.71	APR. 28, 1983	5.94
APR. 28, 1983 TO JULY 22, 1983	5.14	6.64	JULY 22, 1983	6.57
JULY 22, 1983 TO OCT. 5, 1983	6.27	8.72	OCT. 5, 1983	8.62

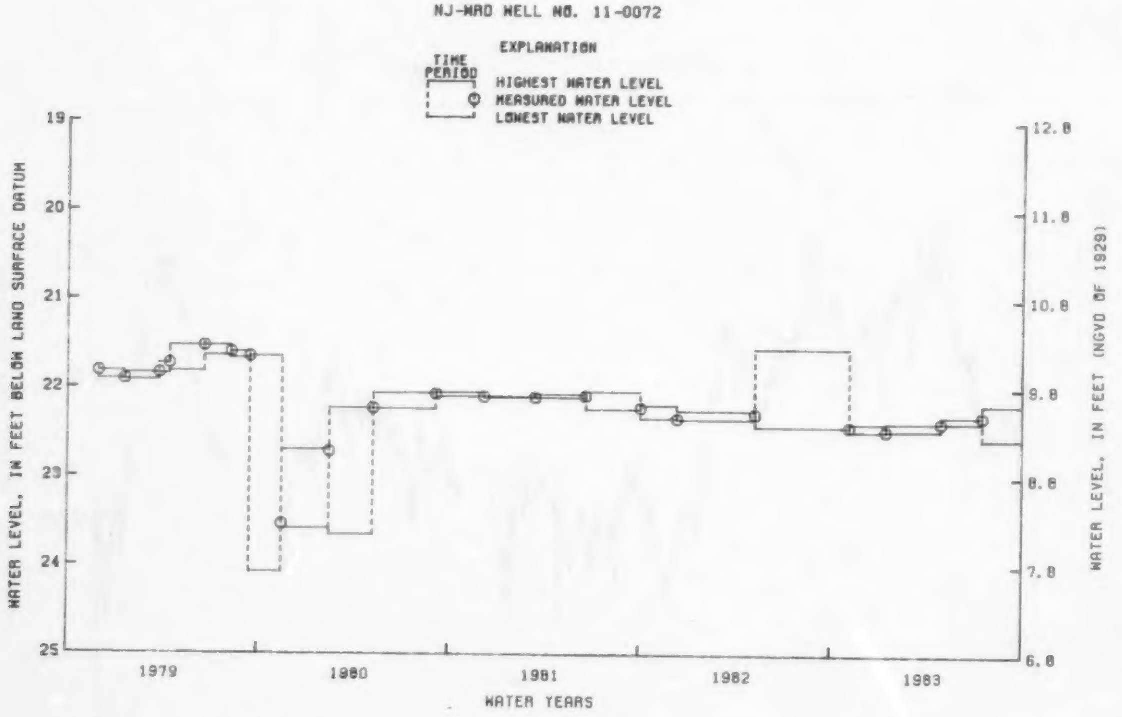


CUMBERLAND COUNTY

392442075191601. Local I.D., Sheppards 1 Obs. NJ-WRD Well Number, 11-0072.
LOCATION.--Lat 39°24'42", long 75°19'16", Hydrologic Unit 02040206, near the south end of Sheppards Mill Pond, about 3.5 mi south of Shiloh.
Owner: Cumberland County.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 638 ft, screened 603 to 623 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year.
DATUM.--Land-surface datum is 31.80 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.75 ft above land-surface datum.
PERIOD OF RECORD.--May 1977 to current year. Periodic manual measurements, March 1973 to June 1975. Records for 1973 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.44 ft below land-surface datum, between May 11 and Aug. 12, 1977; lowest, 24.08 ft below land-surface datum, between Sept. 13 and Nov. 14, 1979.
EXTREMES FOR CURRENT YEAR.--Highest water level, 22.18 ft below land-surface datum, between July 15 and Oct. 5, 1983; lowest, 22.57 ft below land-surface datum, between July 15 and Oct. 5, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
NOV. 3, 1982 TO JAN. 12, 1983	22.39	22.48	JAN. 12, 1983	22.47
JAN. 12, 1983 TO APR. 27, 1983	22.38	22.47	APR. 27, 1983	22.38
APR. 27, 1983 TO JULY 15, 1983	22.31	22.38	JULY 15, 1983	22.31
JULY 15, 1983 TO OCT. 5, 1983	22.18	22.57	OCT. 5, 1983	22.45



GLOUCESTER COUNTY

394942075131701. Local I.D., Shell Chemical 5 Obs. NJ-WRD Well Number, 15-0296.

LOCATION.--Lat 39°49'42", long 75°13'17", Hydrologic Unit 02040202, near the intersection of Mantua Grove Road and Route 295, West Deptford Township.
Owner: Shell Chemical Company.

AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 327 ft, screened 321 to 326 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 20.76 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.90 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.-June 1962 to current year. Records for 1962 to 1977 are unpublished and are available in files of New Jersey District Office.

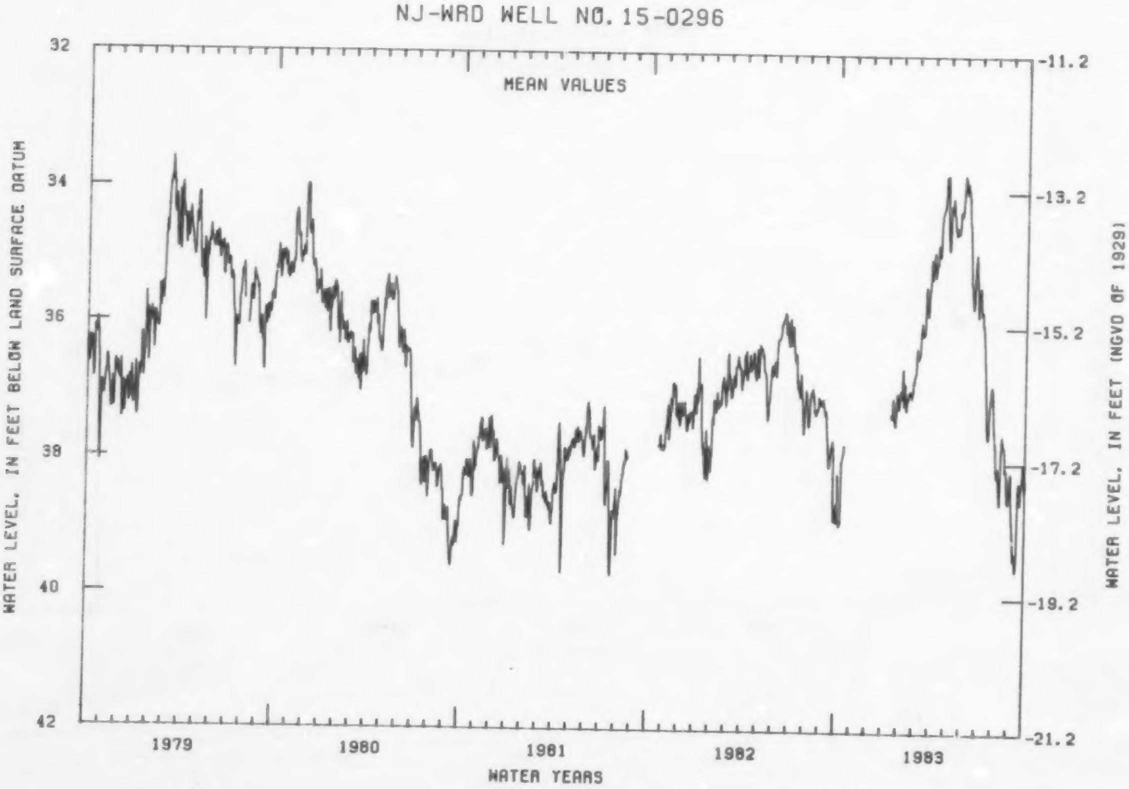
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.75 ft below land-surface datum, Dec. 6, 1962; lowest, 40.63 ft below land-surface datum, July 21, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 33.32 ft below land-surface datum, Apr. 27; lowest, 39.93 ft below land-surface datum, Sept. 12.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.91			---	37.15	36.45	35.25	34.20	33.94	35.75	38.20	38.98
10	37.94			---	37.22	36.02	34.78	34.33	34.46	36.17	38.53	39.32
15	---			37.04	36.94	35.99	34.55	34.62	35.38	37.15	37.58	38.76
20	---			37.45	37.04	35.73	34.24	34.52	35.39	37.36	37.91	38.59
25	---			37.11	36.72	35.41	33.83	34.32	35.23	36.85	38.43	38.03
EOM	---			36.97	36.65	35.10	34.80	33.78	35.48	37.60	38.14	38.23
MEAN	---			---	36.93	35.85	34.58	34.34	34.90	36.69	38.11	38.69

WTR YR 1983 MEAN 36.42 HIGH 33.74 APR 27 AND OTHERS LOW 39.58 SEP 12

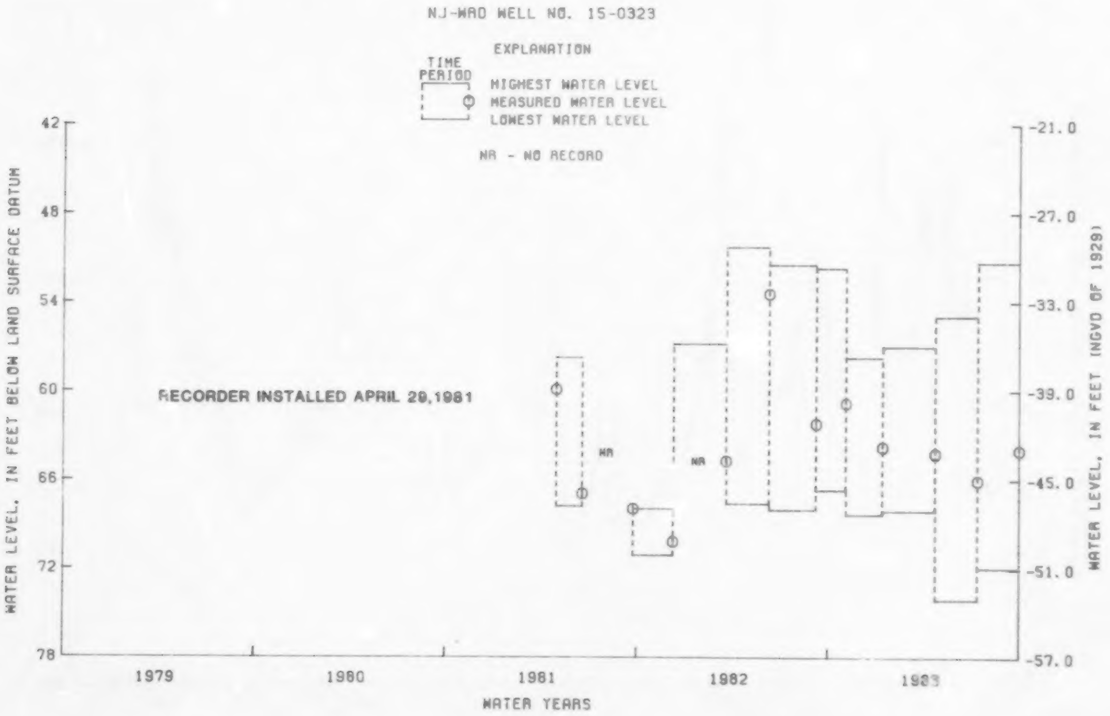


GLOUCESTER COUNTY

395232075094201. Local I.D., Eagle Point 3 Obs. NJ-WRD Well Number, 15-0323.
LOCATION.--Lat 39°52'35", long 75°09'50", Hydrologic Unit 02040202, at the Texaco Eagle Point Refinery, West Deptford Township.
Owner: Texaco Incorporated.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 276 ft, screened 255 to 275 ft.
INSTRUMENTATION.--Water-level extremes recorder, April 1981 to current year. Water-level recorder, November 1949 to July 1975.
DATUM.--Land-surface datum is 20.96 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.00 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--November 1949 to July 1975, April 1981 to current year. Periodic manual measurements, October 1976 to March 1981. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.70 ft below land-surface datum, Nov. 25, 1950; lowest, 87.30 ft below land-surface datum, June 28, 1963.
EXTREMES FOR CURRENT YEAR.--Highest water level, 51.31 ft below land-surface datum, between July 12 and Sept. 29; lowest, 74.09 ft below land-surface datum, between Apr. 22 and July 12.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
NOV. 3, 1982 TO JAN. 12, 1983	57.74	68.36	JAN. 12, 1983	63.79
JAN. 12, 1983 TO APR. 22, 1983	57.02	68.10	APR. 22, 1983	64.21
APR. 22, 1983 TO JULY 12, 1983	54.97	74.09	JULY 12, 1983	66.05
JULY 12, 1983 TO SEPT. 29, 1983	51.31	71.96	SEPT. 29, 1983	63.99



HUNTERDON COUNTY

402644074563601. Local I.D., Bird Obs. NJ-WRD Well Number, 19-0002.

LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, near U.S. Post Office, Sergeantsville.
Owner: Phillip Fleming.

AQUIFER.--Stockton Formation of Triassic age.

WELL CHARACTERISTICS.--Dug water-table observation well, diameter 3 ft, depth 21 ft, lined with stone.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 342.08 ft, revised, above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.50 ft above land-surface datum.

REMARKS.--Water-quality records for 1983 are published elsewhere in this report.

PERIOD OF RECORD.--June 1965 to July 1970, May 1977 to current year. Periodic manual measurements, September 1970 to September 1976. Records for 1965 to 1976 are unpublished and are available in files of New Jersey District Office.

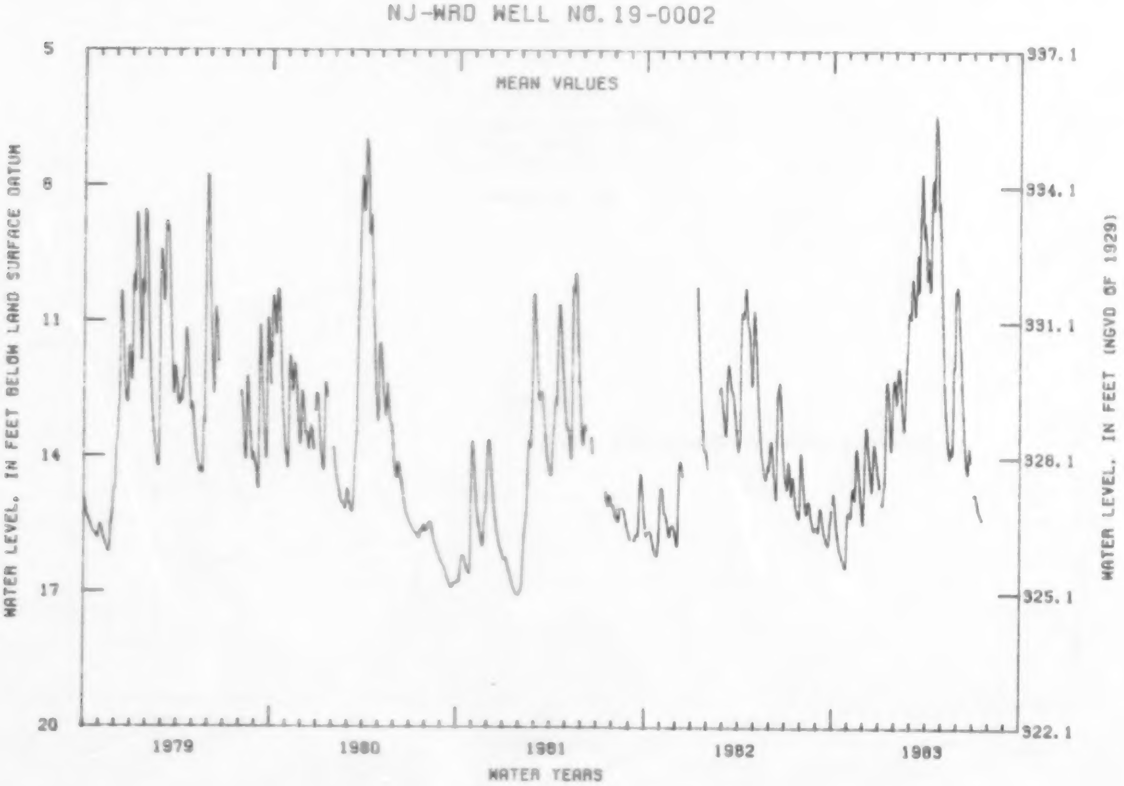
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.37 ft below land-surface datum, Apr. 18, 1983; lowest, 17.04 ft below land-surface datum, Jan. 26-28, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 6.37 ft below land-surface datum, Apr. 18; lowest, 16.42 ft below land-surface datum, Oct. 25-27.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.13	15.32	13.31	15.01	12.10	10.03	9.57	11.99	11.26	14.80		
10	15.74	14.72	14.01	14.59	12.42	10.84	9.16	13.22	12.62	15.07		
15	16.08	14.01	14.66	12.31	13.23	9.50	8.45	13.94	13.74	15.27		
20	16.26	14.28	13.72	13.20	12.55	8.98	6.62	13.80	14.36	---		
25	16.41	15.03	14.11	13.09	10.97	8.56	8.30	11.94	13.91	---		
EOM	15.22	15.08	14.65	12.52	10.82	9.39	9.90	10.20	---	---		
MEAN	15.78	14.79	14.08	13.30	12.29	9.63	8.58	12.46	12.89	---		

WTR YR 1983 MEAN 12.78 HIGH 6.42 APR 18 LOW 16.42 OCT 26

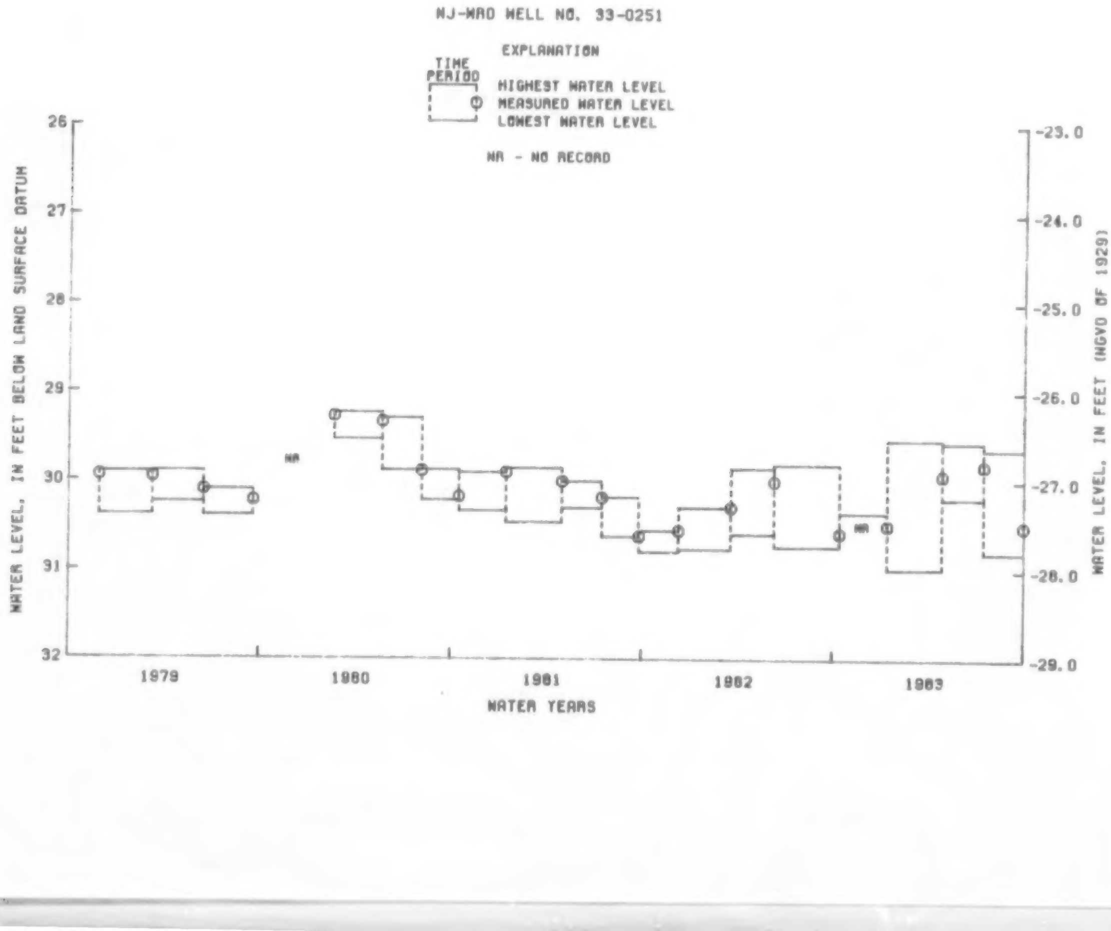


SALEM COUNTY

393348075275701. Local I.D., Salem 1 Obs. NJ-WRD Well Number, 33-0251.
LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem.
Owner: U.S. Geological Survey.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 709 ft, screened 699 to 709 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, December 1965 to August 1975.
DATUM.--Land-surface datum is 3.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.87 ft above land-surface datum.
PERIOD OF RECORD.--December 1965 to August 1975, May 1977 to current year. Records for 1965 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.97 ft below land-surface datum, Dec. 13, 1965; lowest, 30.98 ft below land-surface datum, between Jan. 12 and Apr. 27, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 29.53 ft below land-surface datum, between Jan. 12 and Apr. 27; lowest, 30.98 ft below land-surface datum, between Jan. 12 and Apr. 27.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 13, 1982 TO JAN. 12, 1983	30.35	---	JAN. 12, 1983	30.49
JAN. 12, 1983 TO APR. 27, 1983	29.53	30.98	APR. 27, 1983	29.93
APR. 27, 1983 TO JULY 15, 1983	29.56	30.19	JULY 15, 1983	29.82
JULY 15, 1983 TO SEPT. 29, 1983	29.64	30.80	SEPT. 29, 1983	30.50



SALEM COUNTY

393348075275703. Local I.D., Salem 3 Obs. NJ-WRD Well Number, 33-0253.

LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem.

Owner: U.S. Geological Survey.

AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 340 ft, screened 335 to 340 ft.

INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, November 1965 to August 1975.

DATUM.--Land-surface datum is 3.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Front edge of cutout in recorder housing, 2.30 ft above land-surface datum.

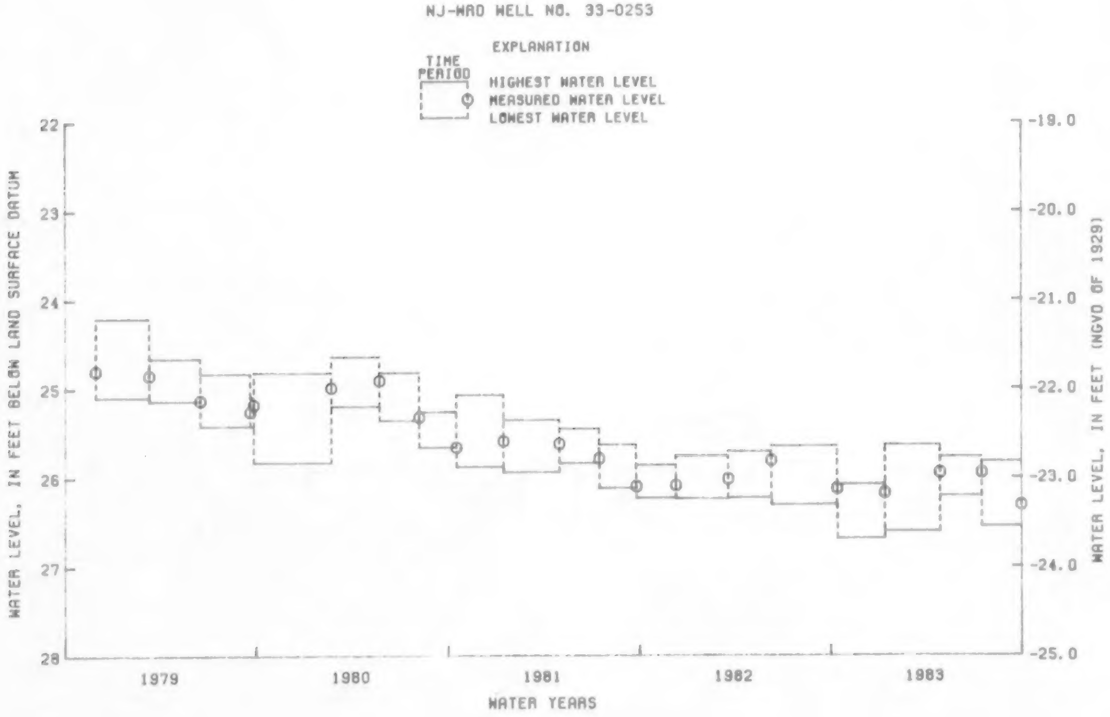
PERIOD OF RECORD.--November 1965 to August 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.28 ft below land-surface datum, Feb. 13, 1966; lowest, 26.69 ft below land-surface datum, between Oct. 13, 1982 and Jan. 12, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 25.64 ft below land-surface datum, between Jan. 12 and Apr. 27; lowest, 26.69 ft below land-surface datum, between Oct. 13 and Jan. 12.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 13, 1982 TO JAN. 12, 1983	26.08	26.69	JAN. 12, 1983	26.18
JAN. 12, 1983 TO APR. 27, 1983	25.64	26.61	APR. 27, 1983	25.95
APR. 27, 1983 TO JULY 15, 1983	25.77	26.21	JULY 15, 1983	25.95
JULY 15, 1983 TO SEPT. 29, 1983	25.82	26.55	SEPT. 29, 1983	26.31



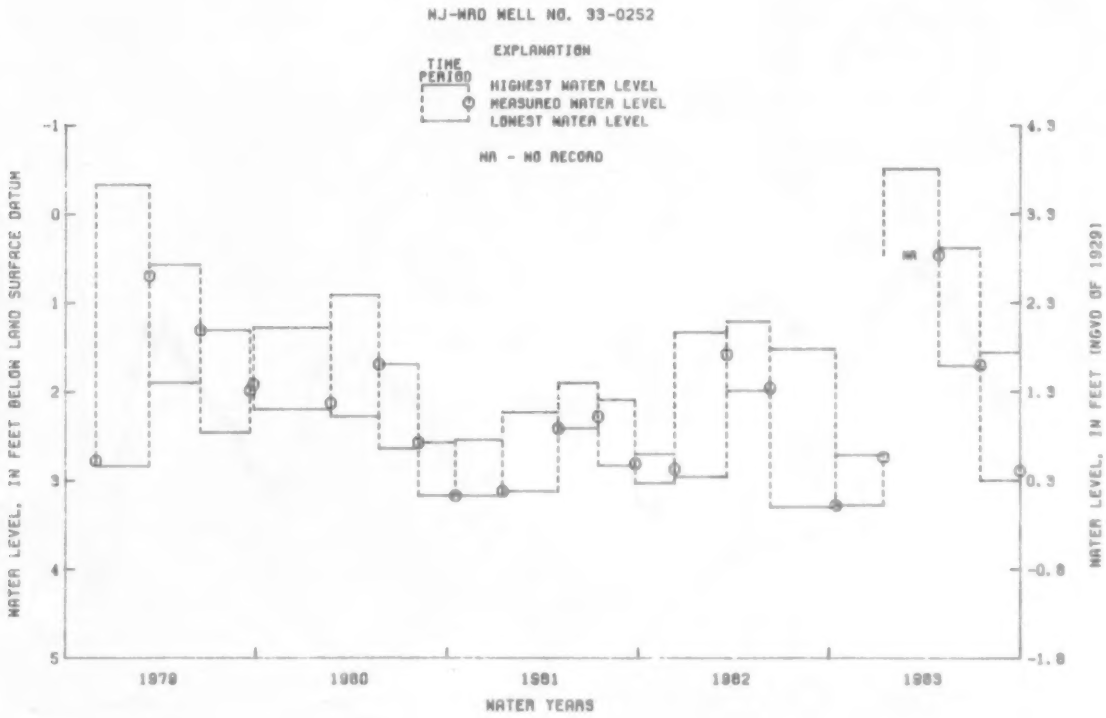
SALEM COUNTY

393348075275702. Local I.D., Salem 2 Obs. NJ-WRD Well Number, 33-0252.
LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 96 ft, screened 91 to 96 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, November 1965 to July 1975.
DATUM.--Land-surface datum is 3.25 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.77 ft above land-surface datum.
PERIOD OF RECORD.--November 1965 to July 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.51 ft above land-surface datum, between Jan. 12 and Apr. 27, 1983; lowest, 6.45 ft below land-surface datum, Sept. 9, 1966.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.51 ft above land-surface datum, between Jan. 12 and Apr. 27; lowest, 3.28 ft below land-surface datum, between Oct. 13 and Jan. 12.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 13, 1982 TO JAN. 12, 1983	2.71	3.28	JAN. 12, 1983	2.74
JAN. 12, 1983 TO APR. 27, 1983	-0.51*	---	APR. 27, 1983	0.46
APR. 27, 1983 TO JULY 15, 1983	0.38	1.71	JULY 15, 1983	1.70
JULY 15, 1983 TO SEPT. 29, 1983	1.56	3.00	SEPT. 29, 1983	2.89

*Water level above land surface.



SALEM COUNTY

394037075191501. Local I.D., Point Airy Obs. NJ-WRD Well Number, 33-0187.

LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, at intersection of Point Airy and Woodstown-Swedesboro Roads, 1 mi north of Woodstown Borough boundary.

Owner: U.S. Geological Survey.

AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 672 ft, screened 664 to 672 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 72.97 ft, revised, above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 6 inch casing, 1.80 ft above land-surface datum.

REMARKS.--Water level affected by nearby pumping.

PERIOD OF RECORD.--February 1959 to August 1975, March 1977 to current year.

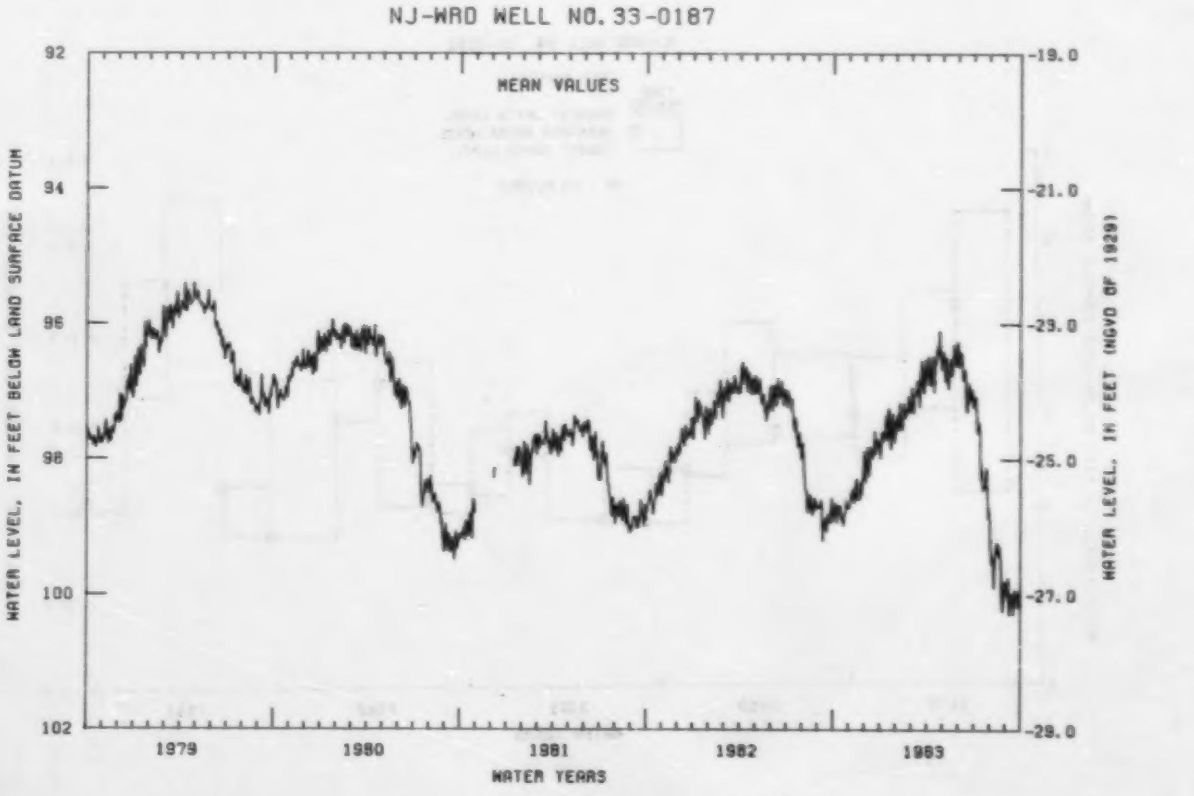
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.55 ft below land-surface datum, Mar. 6, 1959; lowest, 100.52 ft below land-surface datum, Aug. 6-7, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 96.01 ft below land-surface datum, Apr. 24-25; lowest, 100.40 ft below land-surface datum, Aug. 26, Sept. 8, and Sept. 16.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	98.78	98.47	97.92	97.73	97.56	97.31	96.76	96.56	96.44	97.07	99.54	99.76
10	98.73	98.64	98.16	97.47	97.55	97.06	96.55	96.86	96.82	97.44	99.68	100.14
15	98.87	98.29	97.95	97.28	97.25	96.95	96.84	96.59	96.94	98.30	99.24	100.10
20	98.96	98.58	97.58	97.84	97.34	96.71	96.35	96.66	97.04	98.41	99.29	100.10
25	98.60	98.52	97.77	97.51	97.20	96.93	96.10	96.54	96.99	98.12	100.16	100.04
EOM	98.72	98.17	97.98	97.39	97.15	96.86	96.54	96.26	97.23	98.83	99.83	100.11
MEAN	98.77	98.45	97.92	97.56	97.33	96.93	96.58	96.57	96.85	97.95	99.57	100.04

WTR YR 1983 MEAN 97.88 HIGH 96.10 APR 25 LOW 100.29 SEP 8



WARREN COUNTY

405050075033201. Local I.D., Hoffmann LaRoche 4 Obs. NJ-WRD Well Number, 41-0013.

LOCATION.--Lat 40°50'50", long 75°03'32", Hydrologic Unit 02040105, 1 mi northeast of Belvidere on Route 46.
Owner: Hoffmann LaRoche, Incorporated.

AQUIFER.--Stratified drift of Pleistocene age.

WELL CHARACTERISTICS.--Drilled semi-artesian observation well, diameter 8 in, depth 87 ft, screened 67 to 87 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Land-surface datum is 290.30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.

REMARKS.--Water level affected by stage of Delaware River.

PERIOD OF RECORD.--September 1960 to current year.

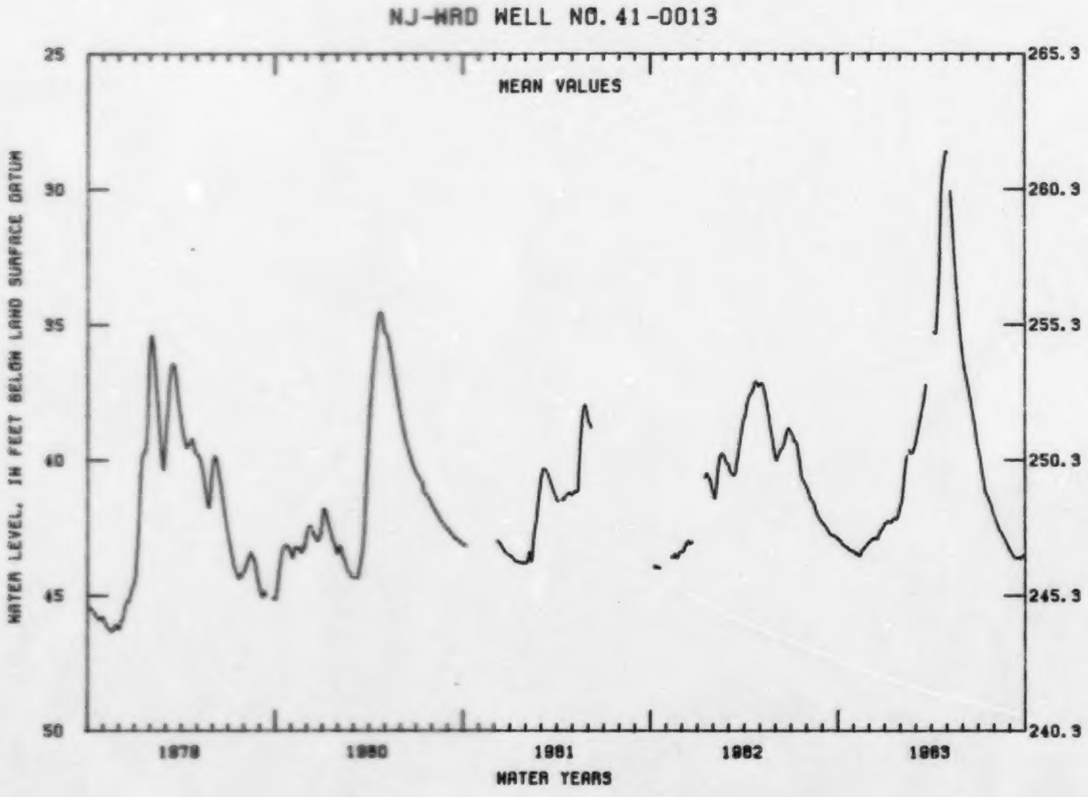
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.59 ft below land-surface datum, Apr. 30, 1983; lowest, 46.59 ft below land-surface datum, Sept. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Highest water level, 28.59 ft below land-surface datum, Apr. 30; lowest, 43.65 ft below land-surface datum, Sept. 20-21.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	42.98	43.49	42.95	42.29	41.02	38.99	---	---	36.69	39.92	42.26	43.47
10	43.13	43.53	42.92	42.31	40.10	38.47	35.28	30.68	37.14	40.59	42.49	43.59
15	43.21	43.42	42.93	42.21	---	38.01	33.56	32.26	37.64	41.18	42.66	43.62
20	43.26	43.29	42.72	42.16	39.76	37.41	30.32	33.70	38.25	41.34	42.86	43.63
25	43.34	43.17	42.56	42.11	39.64	---	29.14	34.91	38.81	41.59	43.05	43.53
EOM	43.37	43.04	42.37	41.64	39.42	---	28.60	36.05	39.47	42.00	43.30	43.63
MEAN	43.20	43.34	42.78	42.16	40.19	38.37	31.91	33.18	37.78	40.97	42.70	43.56

WTR YR 1983 MEAN 40.31 HIGH 28.60 APR 30 LOW 43.65 SEP 21



WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

BURLINGTON COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)
648	WILLINGBORO MUA 3 OBS	40 01 03	074 54 09	34.00	306-316	211MRPAM	83-06-09	15.0	230

LOCAL IDENTIFIER	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE FET-FLD (MG/L AS HCO3)	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE DISSOLVED (MG/L AS SO4)	FLUORIDE, DISSOLVED (MG/L AS F)
WILLINGBORO MUA 3 OBS	7.0	89	27	5.2	7.3	5.6	130	2.2	25	<.10

LOCAL IDENTIFIER	SILICA, DISSOLVED (MG/L AS SIO2)	ALKALINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)
WILLINGBORO MUA 3 OBS	9.3	76	121	<.010	.200	20	.18	<10	<1	1

LOCAL IDENTIFIER	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
WILLINGBORO MUA 3 OBS	<1	6	7500	7	120	<.1	3	4

Geologic unit (aquifer):

211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

CUMBERLAND COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
52	FORTESCUE REALTY 4	39 14 20	075 10 23	8	283-303	121CKKD	83-09-01	230	5.9
326	STANGER, GEORGE	39 16 17	075 13 55	5	440*	124PNPN	83-09-01	760†	300†
54	GANDY,MILES-GANDYS BEACH	39 16 18	075 13 54	5	378-402	124PNPN	83-09-01	3850‡	1100‡
256	MYERS, H.	39 16 19	075 13 57	5	399-409	124PNPN	83-09-01	1050†	200†
343	NEIL, A.	39 16 19	075 14 05	5	459*	124PNPN	83-09-01	620	55
337	COVE ROAD WATER ASSOC.	39 16 22	075 14 14	5	373-393	124PNPN	83-09-02	640	55
338	MAZZOLA, JOSEPH	39 16 23	075 14 18	5	400*	124PNPN	83-09-01	640	60
56	MONEY ISL MARINA 1	39 17 04	075 14 15	4	350-370	124PNPN	83-09-02	720	77
92	BAY PT ROD & GUN CLUB 2	39 17 46	075 15 10	5	397-417	124PNPN	83-09-02	760	79
61	SEA BREEZE TAVERN 2	39 19 26	075 19 21	4	281-354	124PNPN	83-09-02	710	70

* Total depth of well.
‡ Tests in January 1984 indicate casing break.
† Data may reflect casing break in well no. 54.

Geologic unit (aquifer):

121CKKD - Kirkwood-Cohansey aquifer system
124PNPN - Piney Point aquifer

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

GLOUCESTER COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	CHLORIDE, DISSOLVED (MG/L AS CL)
1	CLAYTON BORO WD 3	39 39 12	075 05 22	133	746-800	211MRPAU	83-08-30	20.0	965	8.4	140
3	CLAYTON BORO WD 4	39 40 15	075 05 58	140	670-740	211MRPAU	83-08-30	19.5	870	8.4	110
361	GLASSBORO BORO WD 5	39 41 41	075 07 10	140	600-657	211MRPAU	83-08-30	18.5	615	8.4	60
60	GLASSBORO BORO WD 3	39 42 06	075 07 58	150	562-612	211MRPAU	83-08-30	18.0	670	8.4	66
422	PITMAN BORO WD P4	39 43 45	075 08 04	125	498-568	211MRPAU	83-08-30	17.0	475	8.3	44
130	SO JERSEY WS CO 3	39 44 08	075 13 30	35	234-265	211MRPAU	83-08-30	16.0	1000	8.2	160
236	SWEDESBORO BORO WD 3	39 44 34	075 18 43	75	241-312	211MRPAU	83-09-08	14.5	377	7.2	46
189	MANTUA MUA 2 (SEWELL 1)	39 46 02	075 08 23	80	352-377	211MRPAU	83-08-30	14.5	425	8.2	27
192	MANTUA MUA 5 (EDENWD 1)	39 46 41	075 11 09	88	315-337	211MRPAU	83-01-04	15.0	450	8.3	41
				88	315-337	211MRPAU	83-08-30	15.0	498	8.0	45
193	MANTUA MUA 3 (MANT WC2)	39 47 12	075 10 08	65	295-317	211MRPAU	83-01-04	15.0	410	8.3	30
194	MANTUA MUA 4 (MANT WC3)	39 47 32	075 10 37	10	233-265	211MRPAU	83-01-04	11.0	505	8.2	42
				10	233-265	211MRPAU	83-08-30	--	475	8.1	42
158	MONSANTO CHEM WEST 2	39 47 33	075 23 51	11	57- 82	211MRPAM	82-10-19	14.0	1030	6.5	290
				11	57- 82	211MRPAM	83-09-08	14.0	990	6.5	280
159	MONSANTO CHEM EAST 1	39 47 36	075 23 44	11	56- 81	211MRPAM	82-10-19	13.5	1150	6.4	290
				11	56- 81	211MRPAM	83-09-08	14.0	1100	6.6	300
161	MONSANTO CHEM OBS 1	39 47 39	075 22 32	5	70- 90	211MRPAM	82-10-20	13.5	127	6.5	7.8
163	MONSANTO CHEM OBS 3	39 47 47	075 24 10	5	95-100	211MRPAM	82-10-28	14.5	980	6.7	140
275	WENONAH BORO WD 2	39 47 51	075 09 12	50	268-310	211MRPAU	83-09-08	15.0	335	7.9	24
166	PENNS GROVE WC-BRIDGPT 2	39 47 55	075 21 08	20	65- 85	211MRPAM	82-12-22	13.5	200	4.7	14
				20	65- 85	211MRPAM	83-09-08	13.5	182	5.0	15
167	MONSANTO CHEM 3	39 47 27	075 23 19	10	64- 94	211MRPAM	82-10-19	13.0	635	6.4	170
				10	64- 94	211MRPAM	83-09-08	13.5	700	6.3	200
380	MONSANTO CHEM OBS 2	39 47 57	075 23 46	5	71- 76	211MRPAM	82-10-28	14.5	1370	6.8	340
276	W DEPTFORD TWP WD 4	39 48 21	075 10 26	60	242-288	211MRPAU	82-12-28	14.5	383	7.9	30
355	E GREENWICH TWP WD 3	39 48 22	075 12 47	42	205-245	211MRPAU	83-09-08	14.5	410	7.9	58
16	DEPTFORD TWP MUA 1	39 48 39	075 09 11	70	252-273	211MRPAU	82-12-28	14.0	272	7.7	7.2
283	SHELL CHEM CO 3	39 49 19	075 12 56	30	358-383	211MRPAL	83-08-31	15.0	750	7.7	150
284	SHELL CHEM CO 4	39 49 19	075 12 56	30	127-157	211MRPAU	83-08-31	14.0	375	7.3	22
348	GREENWICH TWP WD 6	39 49 10	075 15 41	20	105-135	211MRPAU	82-12-22	14.0	134	4.1	8.0
210	PAULSBORO WD 6-73	39 49 21	075 14 17	15	185-227	211MRPAM	82-11-30	14.5	251	6.0	31
				15	185-227	211MRPAM	83-08-31	14.0	265	5.8	32
212	PAULSBORO WD 4-51	39 49 29	075 14 47	15	192-220	211MRPAM	82-11-30	14.5	249	6.7	24
76	HERCULES CHEM 4-1970	39 49 39	075 17 04	15	90-121	211MRPAM	82-11-18	14.0	645	6.7	16
331	WOODBURY WD RAILROAD 5	39 49 55	075 09 08	35	405-457	211MRPAL	82-12-22	14.0	282	7.3	24
357	EI DUPONT REPAUNO 7 OBS	39 49 57	075 17 37	4	105*	211MRPAM	82-11-16	13.5	1290	5.4	110
96	HERCULES CHEM-GIBB OBS 2	39 49 59	075 16 50	10	129-134	211MRPAM	82-12-06	13.0	580	4.5	79
97	HERCULES CHEM GIBB 8 OBS	39 50 00	075 16 36	6	102-108	211MRPAM	82-11-03	15.0	450	6.1	120
98	MOBIL OIL-GREENWICH 45	39 50 05	075 15 23	3	95-118	211MRPAM	83-08-31	15.5	2050	5.1	110
118	MOBIL OIL-GREENWICH 47	39 50 36	075 15 01	20	220-240	211MRPAL	83-08-31	15.0	460	6.0	110
207	NATIONAL PARK BORO WD 2	39 51 56	075 10 53	30	241-282	211MRPAL	83-08-31	14.0	318	6.9	24
318	TEXACO EAGLE PT 2	39 52 07	075 09 30	17	259-289	211MRPAL	83-08-31	14.0	422	6.8	32
324	TEXACO EAGLE PT 4-OBS	39 52 36	075 08 21	10	214-224	211MRPAL	82-11-19	13.5	467	7.0	21

* Total depth of well.

Geologic unit (aquifer):

211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

HUNTERDON COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	TOTAL DEPTH OF WELL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
2	BIRD OBS	40 26 44	074 56 36	342.08	21	231SCKN	83-06-27	13.0	276

LOCAL IDENTIFIER	PH (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
BIRD OBS	6.0	66	17	5.6	24	3.4	38	39	28	.10

LOCAL IDENTIFIER	SILICA, DIS-SOLVED (MG/L AS SIO2)	ALKA-LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)
BIRD OBS	7.1	32	146	<.010	2.10	<.05	.33	<10	1	<1

LOCAL IDENTIFIER	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
BIRD OBS	<1	14	12	4	2	.1	76	2.2	<1

Geologic unit (aquifer):

231SCKN - Stockton Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MERCER COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	TOTAL DEPTH OF WELL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
28	NJ CIVIL DEFENSE OBS 1	40 15 52	074 50 18	122.99	330	231SCKN	83-07-05	13.0	470

LOCAL IDENTIFIER	PH (STAND-ARD UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE FET-FLD (MG/L AS HCO3)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NJ CIVIL DEFENSE OBS 1	7.1	220	54	21	12	1.1	150	26	62	.20

LOCAL IDENTIFIER	SILICA, DIS-SOLVED (MG/L AS SIO2)	ALKA-LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)
NJ CIVIL DEFENSE OBS 1	15	117	273	.020	7.60	E.05	<.18	<10	1	<1

LOCAL IDENTIFIER	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
NJ CIVIL DEFENSE OBS 1	<1	1	6	2	15	.1	7	1.1	<1

Geologic unit (aquifer):

231SCKN - Stockton Formation

OCEAN COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)
772	LEBAN SF GOOSE PD 1-83	39 54 51	074 27 02	135.00	32- 42	121CKKD	83-06-29	12.5	21

LOCAL IDENTIFIER	PH (STANDARD UNITS)	BICARBONATE FET-FLD (MG/L AS HCO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS PO4)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
LEBAN SF GOOSE POND 1-83	4.9	3	<.010	<.100	<.05	.09	<10	<1	<1	<1

LOCAL IDENTIFIER	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
LEBAN SF GOOSE POND 1-83	8	270	3	11	<.1	21	1.6	2

Geologic unit (aquifer):

121CKKD - Kirkwood-Cohansey aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

SALEM COUNTY

WELL NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SCREENED INTERVAL (FT)	GEOLOGIC UNIT	DATE OF SAMPLE	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	CHLORIDE, DISSOLVED (MG/L AS CL)
32	PSEG-SALEM NUC GEN STA 3	39 27 40	075 32 02	20	242-293	211MLRW	82-10-22	15.5	775	7.8	160
34	PSEG-SALEM NUC GEN STA 1	39 27 42	075 32 00	17	248-298	211MLRW	82-10-22	15.5	605	7.7	100
364	PSEG-SALEM NUC GEN STA 5	39 27 43	075 31 58	17	765-840	211MRPAM	82-10-22	19.5	355	7.9	23
35	PSEG-SALEM NUC GEN STA 2	39 27 44	075 32 05	20	230-281	211MLRW	82-10-07	15.5	1020	7.7	280
251	USGS-SALEM 1 OBS	39 33 48	075 27 55	3	699-709	211MRPAM	82-11-22	16.5	5820	6.8	1900
253	USGS-SALEM 3 OBS	39 33 48	075 27 55	3	335-340	211MRPAU	82-11-22	15.0	2480	7.6	670
108	US ARMY-FINNS PT CEM	39 36 41	075 33 22	7	290-319	211MRPAM	82-10-15	15.0	--	7.4	110
112	PENNSVILLE TWP WD 4	39 37 54	075 31 48	10	117-137	211MRPAU	82-10-08	13.5	178	6.8	11
163	RICHMAN ICE CREAM 1	39 39 28	075 21 47	25	455-475	211MRPAM	82-10-15	15.0	367	8.1	14
117	PENNSVILLE TWP WD 3	39 39 54	075 30 13	7	87-102	211MRPAU	82-10-08	14.5	183	6.6	12
118	PENNSVILLE TWP WD 1	39 39 58	075 30 45	8	213-238	211MRPAM	82-10-08	14.5	410	7.0	62
119	PENNSVILLE TWP WD 2	39 40 09	075 30 4[illegible]	7	210-230	211MRPAM	82-10-08	--	327	7.4	33
122	ATL CITY EL-DEEPWATER 3R	39 40 46	075 30 18	10	165-235	211MRPAM	82-10-12	14.0	392	7.0	52
125	ATL CITY EL-DEEPWATER 5	39 40 50	075 30 30	10	149-219	211MRPAM	82-10-12	15.0	363	7.0	50
127	ATL CITY EL-DEEPWATER 6	39 41 00	075 30 30	10	158-188	211MRPAM	82-10-12	15.5	392	7.0	53
322	EI DUPONT-CARNEY PT 2	39 41 49	075 29 16	5	169-219	211MRPAM	82-11-16	--	760	6.8	58
345	PENNS GROVE WC 2B	39 42 47	075 27 14	19	45- 58	211MRPAU	82-10-12	13.0	197	5.1	13
346	PENNS GROVE WC-LAYNE 1	39 42 56	075 27 18	19	317-357	211MRPAL	82-10-12	14.5	900	7.5	220
83	BF GOODRICH CO 9	39 45 47	075 25 35	10	93-133	211MRPAM	82-10-21	13.5	90	6.1	8.7
85	BF GOODRICH CO 6	39 45 56	075 25 30	10	109-129	211MRPAM	82-10-21	14.0	148	6.1	20
86	BF GOODRICH CO 4	39 45 57	075 25 23	13	169-189	211MRPAL	82-10-21	13.5	1190	7.1	310

Geologic unit (aquifer):

211MLRW - Wenonah - Mount Laurel aquifer
211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system

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